### THE NEW WONDER WORLD

### A Library of Knowledge

### IN ELEVEN VOLUMES

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- II INVENTION AND INDUSTRY
- III THE NATURE BOOK
- IV Exploration, Adventure, and Achievement
  - V STORY AND ART
- VI Sports, Pastimes, and Handicraft
- VII THE HISTORY BOOK
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  - XI Home and School Guide—
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## THE NEW WONDER WORLD

A Library of Knowledge



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### Volume XI

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# HOME AND SCHOOL GUIDE —— INDEX



### INTRODUCTION

### By DR J RALPH McGAUGHY, Editor-in-Chief

THE function of this volume is very different from that of any of the other volumes of the set. It would be a serious mistake, however, to think of The New Wonder World as composed of ten volumes of interesting and vital materials for children and young people and an eleventh volume which is deadly and dull and unimportant. In a very real sense the Home and School Guide has a unique importance for the whole series

The first ten volumes are designed primarily for children of school age, though they are crowded full of materials which will be read with interest by adults. This volume is unique in that it is addressed to parents and teachers as well as to children. Parts of it have been specially prepared for each group. In the introductions to other volumes it has been pointed out that the books are so planned that they may be used as reference works or for general reading. The index presented in this volume makes it possible to find specific references quickly and easily. This volume also contains specific outlines which will serve as valuable suggestions to teachers who are planning large units of classroom activities. Many teachers find this plan of organizing their work much more satisfactory than following a textbook page by page and chapter by chapter. Other outlines have been prepared especially to be suggestive guides for the mothers of young children who have not yet entered school. Another unique feature of this volume is the series of articles written by some of the most outstanding educators of America. These articles, written as they are for both parents and teachers, are undoubtedly one of the most important contributions to educational literature produced in many years.

The editors of The New Wonder World early in their work faced the problem of deciding whether the ten volumes should be made up of special articles arranged in alphabetical order as in an encyclopedia, or whether the content of the volumes should be arranged in large units of related and sequential reading materials. The great advantages of the second plan were so obvious that it was adopted without hesitancy. This organization was the only one that would make it possible for the books to serve the important function of providing instructive and entertaining books which children would love to read because of their intrinsic interest. It was agreed, however, that the books must also serve the important function of providing reference materials for children who wish to find specific information. This required a detailed index. Fortunately it has been possible to secure Miss Margaret Roeske, M. A., an experienced indexer and library supervisor, to render this fundamentally important and highly technical service.

Books so arranged are much better for reference work than if they were organized as encyclopedias. A pupil who is studying winds, movements of the air over the earth's surface, should learn about both cyclones and tornadoes. If this informational material were to be arranged alphabetically, these two manifestations would have to be discussed in separate articles and printed in two separate volumes. In The New Wonder World, on the other

hand, the word wind in the index will lead one to that part of a single volume where both of these phenomena and others closely allied are discussed in a related and sequential manner. In many instances it will not even be necessary to consult the index when using The New Wonder World for reference work. The title of each volume indicates the kind of material to be found in that volume, and reference to the detailed table of contents will very often locate the specific information or story or biography which is needed

The content of the volumes does not presuppose one definite use, but rather, as previously stated, it will lend itself to a number of important uses. The value of The New Wonder World, it is hoped will be enriched and extended through the use of the outlines included in this volume.

The outlines can be roughly classified in two groups. In one group are those especially planned to guide the experiences of parents and teachers with children who are not yet able to read or browse through these volumes by themselves. These outlines contain suggestions for telling and reading stories and poems, playing games and rhythmic activities, establishing beginnings of appreciation in music and art, as well as giving practical suggestions for building desirable habits in daily living for the very small child. Page and volume references are given to the materials which will best aid this developmental work of the parents and class-room teachers.

In the other group of outlines are those which will guide the use of the volumes with children who are able to read. These outlines are based upon prominent central themes common to the school experiences of children, such as transportation and communication, and also upon the subject-matter divisions of the curriculum such as history and geography. With each outline are included page references to the content and pictures, questions and problems planned to stimulate interest in further study, and suggested activities which will arouse children's interests in profitable enterprises in which they may engage both in and out of school.

The first group, the outlines for the children from two to six years of age, will serve as invaluable guides to mothers and teachers who regard with seriousness their responsibility in the education of the very young child, but who have neither material nor up-to-date training for that responsibility

The second group will serve, first of all, as open-sesame to the parents and teachers who are getting acquainted with these thousands of pages with their variety of topics in such a number of fields. The outlines will furnish large central themes or problems significant to the interests of children and, in addition to this, will give page references to context, pictures, and maps that will facilitate the study of the theme or problem selected. Where children are already embarked upon a plan of study, these outlines will give suggestions for a very thorough pursuit of that plan as well as the summation of references in these volumes that will help the children using them to profit by the rich content of these books.

help the children using them to profit by the rich content of these books

The preparation of the outlines for The New Wonder World was done under the personal guidance of both the editor-in-chief and the associate editor. The outlines were so planned that they might bring about the wisest possible use of the ten volumes in the light of the high educational ideals held for the children who will use them

The twenty-three articles written especially for this volume by prominent educators of

America should be read and studied diligently by every adult who is interested in modern education. Each of these authorities wrote his article in response to an invitation to develop his own theories of sound education in whatever way he pleased, writing an article which would be of greatest possible help to parents and teachers. It is evident that each of them accepted the invitation as a very important responsibility and privilege. It may be said without fear of contradiction that no book in the professional literature of education offers so varied and authoritative a discussion of the problems of child growth and development as is included in the symposium in this volume.

Each contributor was invited to join the group because of his unique and outstanding leadership in some field in either the theory or practice of modern education. A number of great leaders who have attained the prominence of important university professorships because of their vision and understanding and because of their ability to speak and write with conviction are included in the list. This unique symposium is not restricted to theorists in the field of education, though they are recognized leaders in educational philosophy and psychology and the educational procedures of elementary and secondary schools There are articles from just as distinguished a list of persons who have faced the problems of modern education in a more practical way as administrators or supervisors of public and private In this group are found three distinguished women who are famous for their work as elementary supervisors Five well-known superintendents of schools have also contributed interesting and searching articles on the problems of modern education these men has attained national prominence because he has organized and administered his school system on the theory that the child and his well-rounded development are of fundamental importance They have not neglected the important externals of finance and school buildings and equipment, but each has been above all things else, a student of children and of educational problems

The editors and publishers of The New Wonder World are proud to have been instrumental in bringing into this single volume the viewpoints of such famous authorities in the field of education. The discussion of the specific problems met in such special fields as reading and science should be most valuable to both parents and teachers and should make it possible for them to work together more sympathetically and intelligently. The parent or teacher can study these articles and gain a broader and deeper understanding of the problems of childhood and adolescence.

The editors present this volume and the other volumes of The New Wonder World with pleasure and a good deal of pride. There can be no doubt of the need for such a set of books in the well-rounded development and education of the children who are to be the leaders in our democracy in the near future. We trust the planning of the volumes and the selection and writing of materials have been so well done that The New Wonder World will serve well the high purposes for which it has been designed and built



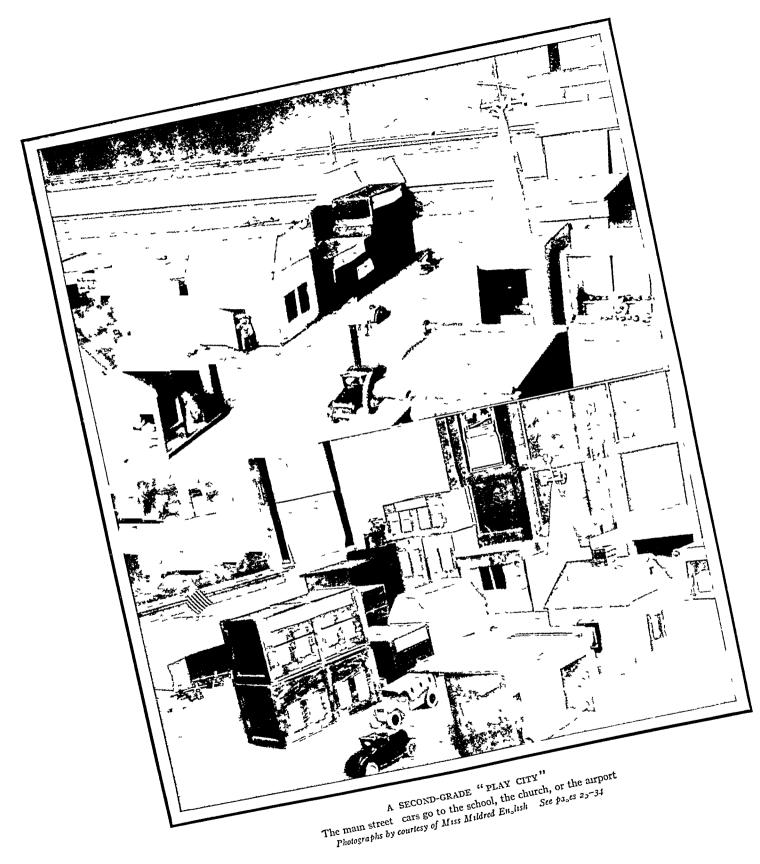
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### WHERE THE HOME AND SCHOOL MEET

### By CHARLES L SPAIN

Deputy Superintendent of Schools, Detroit, Michigan

THERE comes a time in the life of every parent when social sanction as well as legal obligation makes it imperative for him to share with the school the responsibility of educating his child. Whether the parent looks upon the school as an opportunity or as a governmental requirement to be complied with grudgingly, has an important bearing upon the school career of the child, because his education during the early years is a joint problem of the school, the home, and other social agencies

There must be continuity in a child's experience The home life and the school life cannot be isolated one from the other During a pre school period of five or six years, the home and other influences shape a child's development The school receives him as these influences have made him. If he comes from a home where parents are understanding and sympathetic, where he has had an opportunity for initiative and self-direction under parental guidance, and where he has developed those attitudes and habits toward others which make him social minded, the problem of the school is much simplified On the other hand if a child's pre school life has made him selfish and unsocial, has given him complexes as a result of adult domination, or has interfered with his normal growth and development to the extent that he is malad justed, then the problem of the school becomes a perplex ing one In such instances the school and home frequently find themselves at variance Scientific research has made it possible to correct many of the maladjustments which children have when they enter school but efforts in this direction may be ineffective if there is lack of cooperation on the side of the home

Effective cooperation always implies mutual understanding. It is therefore essential that parents be given every opportunity to find out what the modern school seeks to do for the children, what purpose lies behind the activities in which school children engage, and what responsibilities the school of to day undertakes to assume

Perhaps the contemporary relationships of home and school may be better understood if we consider what they have been in the past. The American school of pioneer days played only a small part in a child's education. All the community expected from it was a little formal instruction in reading, writing, spelling, and arithmetic, together with some study of the Bible and other religious writings.

The life of this early period was simple. Most of the experiences which a child needed to prepare him for Puritan society were acquired in the home, the church, and the normal activities of the community. Training for leisure time was unnecessary. There was no leisure time. The Puritan viewed idleness as sinful and frowned.

upon music, art, and the dance Although the Puritan believed in the gospel of work, vocational training had no place in the early schools. The struggle against the rigorous environment of his new home give every parent ample opportunity to train his children to use their hands in providing the necessities of life.

With this picture in mind let us project our thoughts forward to the day in which we now live with its complex and strenuous social and industrial life. This modern life is the outcome of several important social movements. Immigrants from other lands came to this country in hordes. As a result of science and invention the factors and the machine supplanted the simple industries of the home. Thousands of people flocked from rural districts to the cities where industries furnished work, and crowding into restricted areas created many new social industrial, and governmental problems for our country to solve. The outcome is a very complex, highly organized society into which our children are born and in which we must prepare them to live and play a part.

Consideration of these facts will make it evident why the school of to day differs so markedly from the school of the early days, and also in most respects from that of a generation or two ago. The school in each age has undertaken to prepare children to live in society as then constituted. Because twentieth century society is complex the school has a large and varied curriculum, undertakes many new kinds of activity, and assumes many responsibilities which formerly were shared by the home and the community.

The keynote of the old school was knowledge and discipline. But to day we are living in an age in which the fund of knowledge in every field has increased to such vast proportions that no one person can know more than a mere fraction of what there is to know in even the smallest sphere of human experience. The school therefore seeks to emphasize those aspects of knowledge which most directly help a child to interpret and understand the world in which he is to live. Furthermore, as life is dynamic and subject to constant change, the school is interested in helping children to form habits of learning and doing which can be readjusted to meet the demands of a changing life.

Not a few parents view with some degree of solicitation the freedom which children enjoy in contemporary schools. Some infer that discipline in the commonly accepted sense is no longer considered worth while. This is an erroneous view. It is true that severe punishment and harshness are non existent in most of the schools of this generation. But this is true not of the schools alone, for the influence of a new social philosophy has tended to

soften all human relationships. We are more than ever inclined to accept human nature as we find it with all its imperfections, to study cases of miladjustment, and to seek to remedy the defects Regeneration of human nature, rather than suppression or punishment, is the goal The school of this age is influenced by this phil-It holds that the best discipline is the development of the power of self-control and self-direction - the ability to subject one's actions to reasoned control. That some parents have misunderstood this idea of freedom and have permitted their children to get out of control, and that some teachers have misinterpreted the theory and have allowed immature children to plan execute and make selections without reasonable guidance must be admitted But one can scarcely question that social participation under guidance and with a reasonable amount of freedom is more conducive to the development of self-control than a regimen which disregarding natural interests and inclinations tends to stifle initiative any rate a visit to a well-conducted modern school where pupils have a maximum opportunity to assume responsibilities to initiate undertakings, and to become active participants in the life of the school should be sufficient to convince even the most skeptical that a school so organized provides an environment conductive to happiness and normal wholesome growth

The most significant principle involved in modern educrtion is that which holds that education must deal with the whole child - with the physical mental and emotional aspects of his nature. If this be a true premise we can no longer send a child to school merely to learn to read, write, spell and figure, important as these accomplishments may be We cannot intelligently teach a child these skills without understanding and dealing with his mental and emotional characteristics acceptance of this principle in education explains why the school curriculum provides such a varied round of expenences why it makes an appeal to so many sides of child nature To do otherwise would be to deprive children of the richness of experience which is necessary to a wellrounded development

The usefulness of the school as a social agency has been greatly enhanced in recent years through the use of scientific method. We readily perceive that science has remade our standards of living and enriched our daily lives through discovery and invention but the value of the methods of science in the field of education is not so openly apparent Although these methods have their limitations, at least at the present time they have made it possible for us to find out how children learn to read write spell and figure who and how they make mistakes and what remedial measures are necessary in individual cases The scientific measurement of the results of teaching enables us more accurately to set standards and adapt instruction to individual children while the use of intelligence tests is of great aid in the study of those who deviate from normal standards

The modern elementary school program embraces many activities which because they are spectacular and arouse more public interest than the formal and well established phases of the curriculum lend themselves to exploitation and publicity. A good lesson in reading or

spelling or a well-planned lesson in arithmetic does not make news, it has no popular appeal, it provides no maternal for the rotogravure section and receives no pub-It lacks the essential human interest. On the contrary the champion football team, the girls' hockey team, or a group of diving Venuses in the swimming pool all have that human interest which gives them news value This reference implies no criticism of good publicity which accurately informs the public, but rather of overemphasis by the press on the more dramatic phases of school work thus leading the public to believe that the so-called fundamentals are being neglected. This inference has no justification in fact, for in almost any school system at least seventy-five per cent of the time and effort of teachers is devoted to matters which have been in the curriculum in some form for several generations

If we can agree that the old concept that the school is a place for limited formal training is too narrow to serve the needs of this age and if we accept the principle that the school is concerned not merely with the development of a child's intellect but with his emotions and his physical nature as well we can better understand the curriculum and the organization of the progressive schools of to-day

Contrary to the opinion held by some the percentage of persons in this country who can read fluently and intelligently, can write with fair speed and a reasonable degree of legibility can spell accurately words required in ordinary correspondence, and can manipulate the arithmetical processes needed in duly life is larger than it was formerly Turthermore, there can be little doubt that school children of average intelligence to-day surpass those of the earlier generations in many other ways Their Inglish composition is more fluent more accurate, and displays more of the quality of originality though they may know less about the rules of formal grammar Through the study of geography and nature supplemented by films, slides stereographs radio talks excursions to points of interest, and use of travel books and folders, children are better informed as to what goes on throughout the world than they were several generations ago, although they may not be able to equal the students of the old "sailor geography" in the location of capes, sources of rivers, and capitals of states

The achievements of pupils of to-day in art appreciation and in expression through the use of the materials of art are the pinde of every good school system. The facility and skill shown by even small children in using art in the service of the school as well as of the community nad no counterpart in the schools their parents attended. No less remarkable has been the progress made by schools in recent years in developing musical appreciation and skill in execution—both vocal and instrumental. Through participation in quartettes glee clubs choruses, bands and orchestras and through the advantages of public school instruction in the use of musical instruments music has come to be an essential and valuable teature of school life.

Experience as well as scientific research suggests that a school program of work study and play in well-balanced proportions is best suited to growing children. The school gymnasium and playground therefore are now recognized as units without which a school building is incomplete.

The opportunity for individual and group play under guidance as a part of a school program is now seldom questioned in any enlightened community

Another phase of school activity which was prominent under the name of public speaking in days gone by has now been developed as a part of the program of the auditorium which is found in the newer schools. Here children in an informal way dramatize plays, sing songs, listen to music, present programs in commemoration of special days and events, and conduct meetings of safety clubs, health clubs, civic clubs, and other groups having special interests or hobbies which prompt them to organize. Here moving pictures, stereopticon slides, the phonograph, and the radio are important accessories. It is difficult to appraise these informatimeetings in terms of their social values, but there is much to indicate that in this respect they exceed in value many of the time-honored activities which still remain in the curriculum

Through the readjustment and shifting of emphasis that has come about with the development of the school of to day, doubtless some of the outcomes of instruction valued so highly in the past have been lost. Such is the price of progress. However, there is every evidence that the new educational program yields both direct and indirect results which in terms of our contemporary life more than compensate for those which have been displaced

With its broader outlook the school now undertakes to analyze the special needs of each individual and to provide for the satisfaction of these needs. In an earlier period the misfit was forced out of school at an early age. To day in a good school system he is sent to the psychiatrist and physician who help the school to diagnose his case.

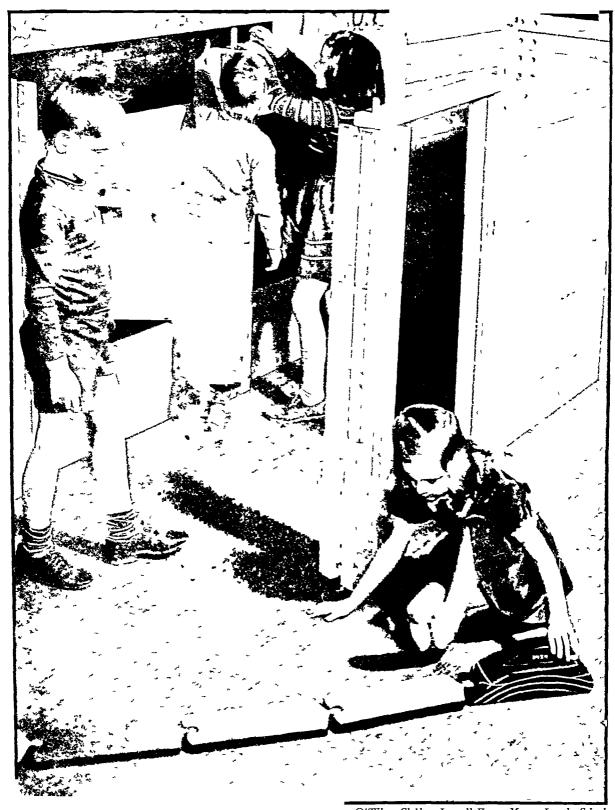
The magnitude of the problem of making individual adjustments may be seen if we analyze the situation in a large city. If the schools enroll 250,000 pupils we must expect a large number to be physically, mentally, or

emotionally I andicapped. Of the 250,000 wc may find 300 who are totally or partially deaf and should be truned in a special school, 350 who are totally blind or have impaired vision and should be taught in special classes, 900 who are crippled and should be cared for in schools where they can receive the ministrations of physicians and nurses, 1,300 who are inclined to be tubercular and should be taught in open-air schools under medical supervision, 1,200 who are underweight or undernourished and should be instructed in small groups in open window or open-air schools, 8,000 who are suffering from speech disorders of various kinds which can be cured by special training in small groups, and over 3,000 who are mentally defective and require special training

In some school systems all of these groups are represented in the enrollment in regular class rooms. In many schools where it is financially possible, pupils in these groups are studied and segregated for the purpose of instruction.

In this discussion an attempt has been made to reveal to the inquiring parent some of the more striking characteristics of the best schools of our time, to show how the school, because of the nature of modern social and industrial life, has been obliged to change its point of view broaden its scope, and assume many responsibilities which had no place in the old scheme of education. An effort also has been made to show that the school is ready to meet the parent more than halfway in his efforts to prepare his children to face life's problems with confidence courage, and the expectation of a fair measure of success

The thoughtful parent who wishes to cooperate with the school in a way that will be most beneficial to his children, will find in this series of books a wide range of valuable information and an opportunity to study exhaustively the theories and practices of education to which brief reference has been made in this article.



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MODERN SCHOOLS ALLOW FREEDOM OF MOVEMENT

### AN ACTIVITY SCHOOL MADE STALWART

By JUNIUS L MERIAM

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A STORY IS told that centuries ago in a far away land a Greek was stealing apples. He was high up in an apple tree where probably the fruit was the very best. In his effort to reach the choicest, his foot slipped he lost his balance, he fell to the ground. Upon discovering that he had a broken leg, he exclaimed "Ah me, oh, my! Now there is nothing for me but to teach in an elementary school."

Perhaps this Greek had his pride really hurt when he interpreted his accident as a positive fall from his high occupation to that lowly position as teacher in an elemen tary school There are scores and hundreds of young people here in our own America who feel as the Greek did, but they accept with smothered feelings the position to which fate has forced them Other teachers "higher up" look down and offer sympathy Commercial, indus trial, and even domestic busybodies are somewhat surprised that any teachers should feel hurt in their positions, and then turn to congratulate themselves, saying with the Phansee of old "God, I thank thee, that I am not as other men are " Some parents and their represent atives the school board, and sometimes even the school superintendent and other officials look down upon the teacher doomed to toil in the elementary school

It must be recognized that there are situations in which such "teaching" may be experienced as a definite fall from a high apple tree. Some school buildings and individual rooms are veritable prisons, some school officials are harsh slave drivers, some courses of study—the school's occupation—are so archaic that a dismal shroud is spread over all. If teachers suffer by such isolation from life, their pup is also suffer. And parents who understand the situation sympathize deeply for both pupils and teachers.

But there are good reasons for a much more optimistic People who discover that they have a broken limb, incapacitated for activity in another occupation, may reasonably congratulate themselves for the "acci dent" - at least for the discovery People who follow social custom, even to the extent of wanting a whitecollared job, and thus find themselves in the elementary school, may reasonably congratulate themselves that the vogue of society was in control People who feel sure of a bright opening some time later but who must be occupied somehow in the mean time, may reasonably congratulate themselves that they are to have so good a "purking place" People who by nature or by training, or by both nature and training, are imbued with the sincere desire to be of social service to little people and their homes, may reasonably congratulate themselves that they have chosen to teach in an elementary school

If all these teachers are to be congratulated, the pupils

are not to be denied the same felicitation. All parents with an interest in children and school and society are to share the congratulations under these auspicious circum stances.

It is the purpose of this article to point out to parents to teachers, to pup is, to all who will read with open mind, the situation in our newer school movements sounding a note of warranted optimism. "I due tion for a changing civilization" implies that some school-may fail to keep pace. Some pupils and their teachers suffer in consequence. Then parents sympathize in reality. But kilpatrick points to a momentum of civilization that carries our educational program far on into better ways. In this new movement we must face difficulties and even obstinate counter movements. This new movement is acquiring the designation—the Activity School or the Child Centered School

Parents are proud of their children. They ought to be There are few exceptions. Naturally enough these parents are usually proud of the schools which their children attend. The great majority of parents place confidence in the school, they are pleased with the general effects of the school upon the lives of the children, they are even proud to be thus related to the school through the enrol ment of their children.

Proud of what the school has been and is to div there is reason to look forward to the time soon, when parents will be warranted in being yet more proud of these schools

From the very beginning of our schools (any specific date would be unsatisfactory) parents have taken an interest in the schools. This interest was in earlier times essentially individual in character. Later about twenty five years ago, the Mothers' Club was organized as a means of united efforts on the part of mothers to ally themselves more closely with the schools. These club-interested themselves in raising funds to buy pictures for schoolrooms and hallways. They added some books to supplement the texts. They busied themselves in offering advice and recommendations to teachers and officials as to various phases of school management. These mothers were proud of the schools even if for rather superficial reasons.

But the Mothers' Club soon developed into the Parent-Teachers' Association Fathers were now eligible though it must be observed that the Association member-hip is almost wholk of feminine gender. In some places fathers' clubs have been organized. In the last two de cades these associations and clubs have allied themselves more particularly with two phases of the school physical welfare of individual children and the curriculum activities of all the pupils. There are thousands of cases where

<sup>&</sup>lt;sup>1</sup> The title of an important book by Wm H Kilpatrick



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READING CAN BE FUN

the parent-teachers' associations have supplied food and clothing, a first essential for school work. In just recent years — one might almost say months — these associations and fathers' clubs have taken an additional interest in the real work of the schools. As school work draws more and more upon home life and community interests, these organizations of parents find larger opportunity to connect themselves with the schools. There is more for the home and community to give than in earlier years when the school was wholly engrossed in its own program of instruction in the narrow three-R's. Parents have an increased pride when they can thus assist in the schooling of their children.

But there is another phase of this relationship ents and the lay public in general have always assumed that the schools do contribute to the welfare of home and community life, even if rather indirectly and indefinitely In more recent years there has developed a feeling that the schools owe to the public a much more definite serv-There is an increasing demand that education function more directly in the life out of school The late Walter H Page has cited an excellent illustration of this in one of his public addresses 2. The parent is pleased when his child brings home high grades In large measure the public judges the teachers and the whole school by the grades assigned to the children And up into the present the public has been quite complacent over the situation As the progressive school movement advances, the basis for evaluation will shift from achievement in school subjects as such to accomplishments in life-acts out of school The three-R's were satisfying to the older generation, when they were pupils That same generation is now questioning The older generation was content with the or cart and the horse and buggy. The automobile and airplane interrupt their complacency. A few years ago a rough-appearing frontiersman in Texas was a close listener to a series of lectures on progressive education. After the third lecture, he said to the speaker "Not long ago I would not have believed that people could travel under the sea. But now I frequently go in a submarine boat. Not long ago I would not have believed we could travel high in the air. But now I often go up in an airplane. Not long ago I would not have believed one could hear people talk in other states. But now my radio brings me speeches and music from New York. I am ready to see profit in the new things in Education." Parents who have been satisfied with the traditional school are soon to recognize far greater values in the new. Activity School

The world's greatest educator, John Dewey, declared over a quarter of a century ago "What the best and wisest parent wants for his own child, that must the community want for all of its children Any other ideal for our schools is narrow and unlovely this quarter of a century the elementary school has tried to give that which the community and the best and wisest parents have wished for their children three-R's, as "tools," have answered, fairly well But throughout these twenty-five years and more, John Dewey and other leaders have become increasingly insistent that the activities of home and community life should play a larger role in our school program "Learning?certainly, but living primarily, and learning through and in relation to this living" (Dewey) Under such influences the Activity School is now rapidly developing into an institution capable of giving "What the best and wisest parent wants for his own child

Page Walter H The Rebuilding of Old Commonacallis See the Chapter How a School Built a Town "School and Society p 19

### THE ACTIVITY SCHOOL TO-DAY

What is this "Activity School" and what is meant by the contention that this Activity School is destined to provide a stalwart education?

A new movement calls for a new vocabulary This new vocabulary is not to be well understood until the new movement becomes clear. To arbitrarily define the new movement is probably to cripple it. The definition will take its best shape only as the new movement develops. We must be patient. However, sufficient advancement has been made to warrant a cursory survey and a tentative impression.

Visitation upon scores of schools from the Atlantic to the Pacific gives one the impression that most conspicuous in the new school is the provision for physical movement No longer need a pupil ask permission to cross the room for a book or pencil He is allowed freedom to go as needs arise Chairs and tables are far more conducive to physical movement than the straight-jacket desk screwed to the floor Excursions are taken to provide direct information as to nature, home, and industrial life An illustration is in place Building and furnishing a doll house is one of the most frequently used activity units in Grades I and II A school in Los Angeles reports excursions around the neighborhood "to find the kinds of houses," also to find out the materials used Then during the construction of the doll house these first-grade pupils took thirteen trips to

- "a Furniture maker's shop
  - b Hills in community to find different kinds of clay
  - c Watch brick masons lay brick
  - d See brick and pottery made
  - e Ranch to see cotton plants in different stages of growth
  - f Radio shop to learn major parts
  - g Broadcasting station
  - h Bakery
  - 1 Newspaper plant
  - J Creamery to see butter made
  - k Large wholesale markets to see farmers bring in products
  - 1 Department store to see Indians wearing rugs, molding pottery, weaving baskets, etc.
- m Visited adopted foreign school nursery to see what they need most "4"

Yet another type of this physical movement is seen in construction work. Here is an example from New York State. The unit of study for a fifth grade is, "In the Fogs off Newfoundland" Portions of the "outcomes" are

Making desk outline maps

Making a schooner

Making a poster showing the fishermen in dones

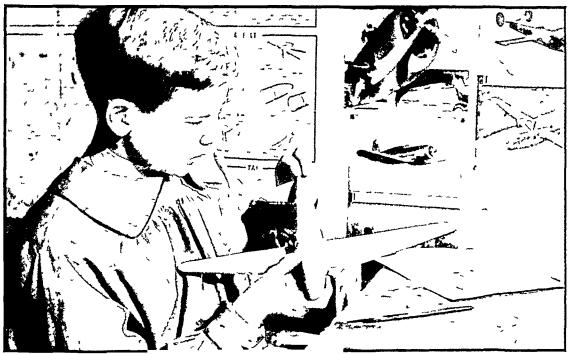
Making a large poster of the lighthouse

Making a trawl line

Dramatizing stories about fishermen

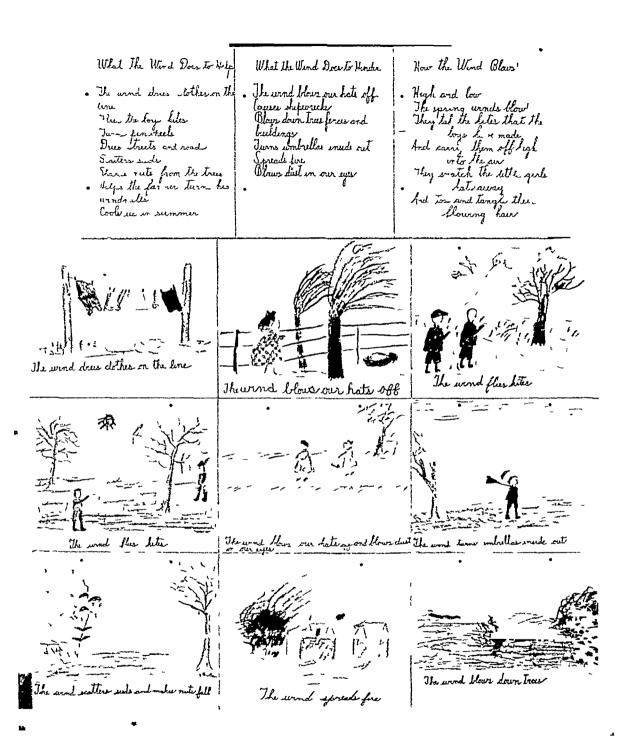
Constructing a motion picture machine 5

<sup>&</sup>lt;sup>5</sup> Cardinal Objectives in Elementary Education (State Department of Education, Albany N 1) pages 142-145



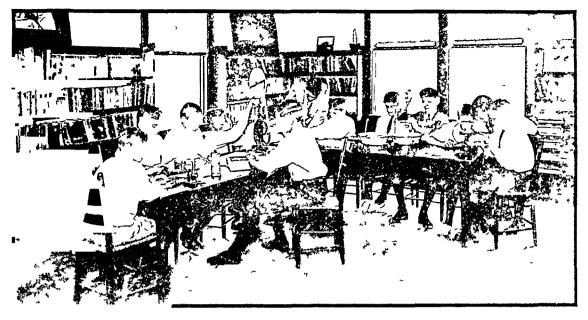
@"Il lere Children Learn" Horace Marn-Lincoln School

<sup>&</sup>lt;sup>4</sup> California Curriculum Commission, A Guide to Child Development, page 77



GRADES I AND II STUDY THE WIND HOW IT HELPS AND HOW IT HINDERS

Elementary School University of Missouri



FIFTH GRADE BOYS STUDY COLOR, ELFCTRICITY, ETC

Elementary School University of Missouri

Observation in many schools reveals a second prominent innovation in these newer schools. This is freedom In the old school pupils were quite free to keep real still. not talk aloud or even whisper, free to sit in good order and study by quiet reading. But the new freedom is very different Pupils are free to talk with one another, free to move about and sit in other parts of the room, free to do this piece of work or that, there is even the treedom to suggest — or almost dictate — to the teacher, what topics for study shall be selected This involves freedom to think for themselves Such freedom allowed children is expressed in some form of overt activity, not in being mactive They take the initiative, or at least these children are led to think they themselves are taking the initiative They are allowed to judge of the direction the particular study is taking They themselves decide upon the results and determine upon the conclusion

An example of this social or intellectual freedom is taken from the course of study of a city recognized for its progressive work. "The interest of the children in pets furnishes some interesting activates. A little yellow dog came to school with a first grade boy. After she had attended school several days the children decided to make her a house so she could have a place to rest while at school. An interest in all kinds of pets grew out of this unit. Each morning a sixth grade child came into the room at the free period. To make suggestions or to give any help the pupils needed in printing their stories."

Physical movement, social and intellectual freedom are followed by a third mark of this new school a schedule so flexible as to almost annihilate the very essence of schedule and system. This school work is a constant

flux — a continuous flow of schoolroom activities, one unit of work so conducted as to leid on to something else "Integration" is the new term indicating a unity of all the activities of the school. This interrelating of all parts of the school work, arbitrarily determined upon by the teacher, was counted as "correlation" a quarter of a century ago. It practically forbade pupil freedom. This new "integration" is essentially a composite of individual and group freedom in school occupation. Time schedule is reduced to a minimum. Neither teacher nor pupils watch the clock. Their whole attention is so centered upon what is being done that activities of both the individual and the group are a continuous stream. "Leads carry the work on and on as in a connected whole

The critical observer notes a fourth characteristic in this new school Individual and group happiness looms large Some would say intense interest holds swav Apparently there is a keen responsiveness. No occasion for the teacher to urge or even invite attention by the It is given before she is aware. Pupils almo t shout with delight rather than breathe one sigh of dis Children like this new school No task is imposed Effort is greatly increased by reason of strong motivation within each pupil. The observer is impressed with this new exhibition of child interest. For long years pun! interest in school subjects has been induced through child interest in the affairs of normal life. It now appears that the life activities in which children have primary interests become the center of school occupation Induced interests seem no longer necessary. Such is the school to the inexpert observer. The expert observer however interprets quite differently. In either case it is clear that the pupils are enjoying their school

<sup>6</sup> Raleigh Public Schools — Curriculum Bulletin Number 3 (1978)



@"W I ere Children Learn" Horace Mann-Lincolr School

ALL ACTIVITIES CAN BE MADE INTERESTING

Where is the reading, writing, and arithmetic, the spelling, geography, and history of the traditional In many of these "Progressive' Schools sometimes called "Child-Centered Schools," there are virtually two parallel programs, activities play their role and at other periods the three-R's are scheduled three-R schedule interrupts to that extent the continuous stream of activities leading on into other activities But the usual freedom and happiness continues with little abatement There are also many "progressive," "Child-Centered Schools ' in which the three-R's are not scheduled at all But the expert observer detects them. The teachers see that these conventional school subjects are adroitly woven into the very fabric of the activities This is the fifth characteristic. The standard achievement tests in the three-R's must be met and they are met The traditional work is accomplished and in addition these new activities also 7

Such is the Activity School found here and there throughout our country. No two schools follow exactly the same pattern. There is great variation, far greater than with the traditional schools. But the five characteristics above presented are sufficiently common to stamp the Activity School the traditional curriculum, generously supplemented by activities taken directly from life, some schedule but in the main an untimed con-

tinuous flow of school work, a great deal of physical movement directed by freedom bestowed upon the pupils, and through it all an apparent interest indicative of real happiness of the pupils "The Child Centered School"

This Activity School now so popular among pupils and teachers is probably only a makeshift between the old school of the formal three-R's and the new school destined to provide soon a stalwart education. Let the description above given in mere outline form a picture of the Activity School as it now is. After a very limited discussion of certain issues vital in this new movement a larger view will be in evidence, pointing to an education for our children more interesting and more practical, more systematic and more disciplinary, than ever before—a stalwart education

### FIVE VITAL ISSUES

I What objective may well determine the work of the Elementary Schools? What would the wisest and the best parents, business men, industrial leaders, laboring men, really want for their children? An education, they say? Custom interprets this as completion of the traditional schools. And this sounds reasonable. Thus, for some years the more immediate objective has been the acquisition of control over the "tools", a legacy handed down to us through racial experience. Parents have been

See Collings E An Experiment with a Project Curriculum 225-283 Meriam J L Child Life and the Curriculum 447-479

<sup>&</sup>lt;sup>6</sup> This is the title of a book written by Harold Rugg and Ann Shumaker attracting much attention and contributing enthusiasm to this new school.

<sup>&</sup>lt;sup>5</sup> This word 'Stalwart' is u.ed by Profes or Bagley to characterize the traditional school in opposition to the "Progressive" School. It is here u ed to characterize the Activity School as it is destined soon to become

reasonably satisfied if their children do well in the schoolroom arts, reading, writing, arithmetic, etc. But the parent who more sympathetically observes his child and more keenly analyzes the very complex life into which his child must adjust himself, that parent thinks of efficiency in doing whatever his child is called upon to do as the more pointed and valuable objective. The normal activities, behaviors, of children in home and community life are really more fundamental than the so called "fundamentals" of the schoolroom 10 Within the past twenty years the project-method has become a very popular means of appealing to pupils through their normal purposeful activities to induce in interest in the assigned schoolroom subjects In the last few years the activity program has extended the emphasis upon activities and lessened the attention to the school subjects Both the project-method and the activity program indicate a definite trend toward life activities as the really fundimental objective "Learning? certainly, but living, primarily" The parent wishes his child to read, write and cipher better only when such arts help the child to do better as normal life calls upon him Doing is becoming the chief objective, learning is of value as it contributes to doing

2 What is the significance of children's interests? Interest is usually recognized as a large factor in the responsiveness of children If interested in making boats, boys will readily assign themselves to making boats, and in this be led to do things less interesting "Through primary interests to secondary interests" has been a principle much used by teachers in the traditional school Pupils in the present Child Centered Schools are obviously interested and delighted with their new school program And no less obviously is a very considerable amount of the old three Rs being accomplished current practice lays bare two very serious defects in our so-called progressive education Real values of school room subjects and child life activities are misjudged, and also the very moral fibre itself of these young people is badly weakened, even largely destroyed. A pupil may make a boat to be used as a toy, a wholesome plaything or he may construct a boat as a study in floating bodies or a means of transportation. In either case the activity is of real value. On the other hand, there may be occasion for the pupil to have knowledge of certain arith metical processes Here also is a real value However, to use the interesting making of a boat as the inducement to acquire certain anthmetical knowledge is virtually to annihilate both values The "anthmetic" acquired is not functioning and a false function is assigned to the boat making But far more deplorable is the effect on the moral stamina of children This interest indulgence develops a spineless child. A coddled egg is good food, but a coddled child is a weakened member of home and community To use the normal interests of children as a means of accomplishing the formal interests of adults is an insult to childhood and a misinterpretation of the fundamental principle of interest. Our present Activity Schools are in need of a far larger view of pupil interests

and subject-matter values But such a viev is rapidly developing

3 What should be the curriculum content of our ele mentary schools? What should our boys and girls of six to twelve years of age study? Reading writing arith metic, spelling, geography, etc. This is the answer of the traditional school - and of most people. It has long been assumed that these school subjects play a large role in real life. But in recent years students of society, of indutry, of education, are coming to realize that people become equipped for real life by making contact with that life "Experience is a good teacher," but school subjects are far removed from experience. The project method of one and two decades ago and the activity curriculum within the past decade are a part of this movement to a better curriculum. These two innovations are reaching out of the old school into the new life of home and community Schools are reducing the time devoted to the three-R's and correspondingly increasing the time given to the activities Tests and measurements indicate no lowering in the standards of achievement in the tradi tional subjects. Whatever be the profits in the activities is pure gain for the new order. The curriculum of this new order tends more and more to consist of the normal life of children and adults "Life is real, Life is earnest' sang the poet, but it is not all somber and senous. Life consists of labor and leisure, work and play The "pro gressive" school follows suit. Now there is trouble too little guided by advanced study and by capable super visors, have become enamored by the superficial doctrine of interest and play. The discipline of work in the old school has given way to the delights of play in the new And too few of our school officials, teachers and educa tional students realize the situation. At this juncture Professor Bagley injects his caustic criticism "Playing at the Work of Iducation '11 " no matter how enjoyable one's work, the moment that one confuses the work attitude with the play attitude one is in danger The danger lies in the quite human temptation to avoid tasks which do not make an immediate appeal. Tru as it may the progressive theory of education has not as vet managed to escape the fallacies of the doctrine of imme diate interest." This is a well described criticism and should serve as a serious warning. Again the present Activity School needs a larger theory of progressive edu cation, and the critic himself should beware of a too limited interpretation of "immediate interest" present Activity School is justified in its emphasis upon immediate interest, it is grossly in error in its conspicuous failure to indoctrinate its pupils with the realization that they may have immediate interest in hard work -1 suitable work - as well as in gleeful play. In practice the Activity School does confuse work and play much work is made playful. This progressive movement must advance to the position of providing the school program with both work and play - without confusing the two The nature of each must be such as to varrant pupils having immediate interest in each 12

<sup>10</sup> See Fundamentals in the Elementary School Curriculum by J. L. Meriam. Proceedings of the National Education Association 1909, 169-175

<sup>11</sup> Bagley, W C Education, Crime, and Social Progress Chapter 1, page- 87-99

<sup>1</sup> Compare Meriam, J. I. Child Life and the Curriculum, especially pages 255- 15 and 305-335

THE NEW WONDER WORLD, in its ten volumes presents a rich array of materials of the work and the play character Volumes V, VI and IX are essentially play, all others are work. These volumes represent the concrete life and environments of people, a curriculum quite in contrast to the three-R's of the conventional school, but strictly in accord with child nature and in tune with modern trends in elementary education.

4 Why struggle so hard with methods of teaching? The problem of method arises when the teacher finds difficulty in inducing the pupils to learn what is required of them. Two centuries ago Basedow was troubled in getting his little schoolboys to read from the old hornbook. He had the hornbook made of gingerbread. The method spread to England.

'To Master John the English maid A hornbook gives of gincerbread And that the child may learn the better, As he can name he eats the letter Proceeding thus, with vast delight He spells and gnaws from left to right

Our own modern schools use other activities to interest pupils in the schoolroom subjects. A large part of the activity program of our modern schools is essentially based upon Basedow's gingerbread method activities are a doing procedure as an aid to the learning process Closely allied to this is the hazardous doctrine freedom recently so generously granted pupils Freedom encourages activity Activity promotes learn-Freedom and activity are thus used to camouflage uninteresting school work. The close critic finds here a serious danger - a weakening of the morale of pupils and of that discipline needed in undertaking the uninteresting When the Activity School succeeds in improving the selection of studies and activities the problem of method will largely disappear

5 How do we know what the schools are accomplishing? So long as these activities are used to motivate the study of the conventional subjects so long will we be satisfied with achievement tests in the schoolroom subjects. But the Activity School tends to identify school and life as Dewey advised twenty-five years ago. Ere long we must measure school work in terms of its service in the improvement of home and community life. Indeed just this is the latest call from business and industrial men.

### THE ACTIVITY SCHOOL TO-MORROW

The oid traditional school had its strength but also its serious defects. Educational evolution is doing its work. The Activity School is a step in this evolution. Too little

system and too little discipline claims the critic, in contrast to the systematic discipline characteristic of the stalwart traditional school. The serious student of current education is well aware of this though most teachers and school officials are quite blind to this situation. This weakness is largely due to the undeveloped principles relating to the five issues briefly presented above. The critic who is adverse only, fails in that long view which reveals, somewhat ahead of the present a Life Activity School characterized by

- I A simple objective centered upon doing well the wholesome things of everydry life,
- 2 A simple childlike interest immediate but farreaching in its effects,
- 3 A curriculum strictly in terms of the activities and environments of children,
- 4 A receding of the problem of method even to the vanishing point by reason of the appropriateness of the studies and the activities,
- 5 A measurement of results in terms of efficiency of behavior in home and community lite

Over the entrance of one of the most palatial department stores of this whole country (Bullock's Wilshire in Los Angeles) is engraved "Building a business that knows no completion" Such is the Life Activity School if guided by professional leaders and supported by appreciative parents

### SUPPLEMENTARY READINGS

(Only twelve books are selected out of a hundred or so of interest and value)

BAGLEY, W C	Education Crime and Social
	Progress
Воввітт, Г	The Curriculum
Bo\ser, Γ G	The Elementary School Curriculum
Collings, E	An Experiment with a Project
	Curriculum
Dewey, J	Schools of To-morrow
HARAP H	The Education of the Consumer
IRWIN AND MARKS	Titting the School to the Child
KILPATRICK, W H	Education for a Changing Civiliza-
	tion
Merlam, J L	Child Life and the Curriculum
Rugg, H AND	
SHUVALER	The Child-Centered School
TIPPETT J S	Curriculum Making in an Elemen- tary School
Yoevans, E	Shackled Youth

### EDUCATION IN NORTH AMERICA

### SOME IMPRESSIONS OF A NEW-COMER

### BY FRED CLARKE

Director, Institute of Education, University of London, Formerly Professor of Education, McGi'l University, Montreal

INVITED to contribute an article to this volume I feel that I cannot do better than attempt to fix and record a few impressions that have taken shape during a sojourn of a little over two years on this continent. The view I shall try to state is neither that of the visitor nor that of the lifelong citizen, but I am presumptuous enough to think that it may combine some of the features of both. Recency of arrival may mean that a little of the freshness of early impressions is retained, while two years of work in a society so diversified as that of Quebec Province may serve as a guarantee of something of the insight and interest of the established citizen.

The point of view may receive still further definition if I add that some determinants of it are

- I Upbringing and education in England prior to the new era that was inaugurated by the Education Act of 1902
- 2 Some eight years of educational work in England under the new conditions that were created by that Act
- 3 Rather more than eighteen years of work in South Africa during the critical and constructive period that followed upon the achievement of Union in 1910. These facts are mentioned not for any "Who's Who" reason but in order that the impressions I am about to record may be interpreted with some knowledge of the kind of experience that has determined them

From the standpoint that is here assumed, Canada and Canadian experience cannot be viewed as revealing a highly distinctive character of their own. It needs no Statute of Westminster to determine that Canada is even more a part of the North American Continent than it is part of the British Empire What the cultural differences will be - if any - that can give spiritual significance to the forty-ninth parallel, is a question that, in the main, has still to be worked out. The answer may have little enough bearing on the political organization of the Con tinent In the same way the status of complete autonomy that has now been attained by the British Dominions may be regarded as the end of a chapter that began in 1776, without implying that what are now the United States might as well return to allegiance to the British Crown The point I am making is that purely political distinctions are not of primary significance on this Continent where the understanding of its educational necessities is concerned. It is true that there are some distinctive features in Canadian education that can be traced to political and historical separateness, but they are as nothing to the features shared in common with the United States as the result of a common geographical and economic setting The most distinctive thing in Canada is the Province of Quebec, and of that more account may have to be taken in the future

Thus for the purposes of the observations that I am now making, Montreal is as good a lookout as New York

or Chicago while in respect of the one great distinctive feature of Canada it is the best lookout

From South Africa, as perhaps from Europe too in these days, North America is seen above all things is the land of experiment. By this I do not mean that it is a land where experiments are eagerly tried out though that is true enough, I mean rather that it is a land which is itself an experiment, and the interest of other peoples in it is primarily interest in that experiment. I or they, too are vitally concerned in the result, though circumstances prevent them from providing for themselves so favourable and so spacious a laboratory.

The substance of the experiment can be put roughly and briefly in the form of a question "What kind of Culture accords with and realizes the possibilities of a machine production age"? In other words, a question is old as human history itself is being put again in a new form, the old question of the cultural necessities and possibilities that arise from man's way of meeting his material needs Current talk about the "breakdown of Cipitalism", however true it may be from one standpoint only serves to obscure the issue for the educator What sets the problem for him is not the failure of capitalism but its success, if by "Capitalism' we are to mean a technique of production that can make at least the material basis of the Good Life a possibility for ill. If, when that possibility has emerged, the common ideal of the Good Life remains unachieved the defect is not in the economic system per se. It is a defect in ideas in culture and is to be met by measures which, whatever form they may take, are measures of education. Current tendencies to belabour an abstraction called the "economic system" lead nowhere unless we mean by the economic system a body of ideas - a culture in fact - that stands in the way of fulfilment of the new possibilities. Whatever may be our approach to the problem, the problem itself remains the same, how to achieve a culture that will do justice to all the opportunities that "Capitalism' has made available

The only sensible place in which to look for an answer would seem to be in the field of education if by education we are to mean all the designed processes that bring about changes in ideas. It is a realization of this fact that accounts for the growing tendency to claim for education an autonomy of its own. America ought to be the land where this autonomy is first achieved, though there is no guarantee that this will be the case.

However that may be there is no doubt at ill that the world's interest in American Education springs from a conviction that the task in hand is no less than ac have stated it to be. North American education is an attempt to realize a culture or it is just meaningless tuss. And what is that culture if not the system of life and ideas and values appropriate to an order of machine production?

Russia is working at the same problem from a very different starting-point and with rather different postulates, but it would be hazardous to maintain that the ultimate results will be materially different

I regard North America, therefore, as a world-haboratory for a great experiment in which all mankind is vitally concerned. What are the conditions of the experiment and what are the methods of conducting it? The answer to these questions is a critique of North American education.

There are two features of North American life that seem to be of cardinal significance in determining both the possibility of such a culture and the form it will take Let us call them *Dynamism* and *Democracy* 

As for the first the American is probably less dynamic than he likes to look, certainly less than he feels, and probably a good deal less than a rather apprehensive Europe takes him to be Probably much the same could be said about his democracy. But after all allowance has been made we can still accept these two features as distinctive and probably decisive. For both have deep roots in geography and history and are powerful enough to give a strong family resemblance to practically all the inhabit tants of the Continent whatever their racial origin Moreover, as shaping forces, they supplement and play into one another in countless ways

The dynamic quality of the American spirit is perhaps to be regarded as the energizing of a high potential in the original stock by a favourable and accommodating Nature Where Nature assumes a sterner and more capricious expression, as in South Africa, the same original stock fails to reveal the same dynamic quality is a product of success, and of success won with comparative ease so that always arrogant man can conveniently forget what Nature has done for him and can attribute the result to his own mastering powers. Like all peoples, Americans are prone to generalize a plan and principle of life for all mankind from the conditions of their own experience. So they are apt to be a little impatient of less dynamic peoples whose environment has trught them a different lesson, they are at times, contemptuous of those who have a respect for history, they assume too readily that tradition means passive acquiescence, and they evaggerate the extent to which free "planning ' is open to mankind as a whole Again they are disposed to "pragmatize" science, to measure its value by the work of a crudely practical kind it can do and even at times, to look upon the scientist as a sort of tribal wizard whose business it is to "do a magic" when a harassed or perpleved people is in trouble

Thus the prevailing philosophy is an optimistic one of success and of confidence in man's power, by planning to shape his destinies. It would be deeply interesting and profoundly significant to observe the effect on American philosophy of a long period of adversity. The result would probably be to correct some of the aberrations without changing the dominant character. For we may be sure that much which is observed and commented upon to-day is of the nature of aberration. The real thing itself must not be judged too readily by its passing and occasionally extravagant manifestations.

Work done in what is called the "Science" of Education

affords an appropriate example. There has been an amazing amount of it some of admittedly doubtful value. But what matters is less the quality than the spirit of it. For the most part the work is undertaken in much the same spirit as that which inspires industrial research. If a technique is to be adopted it must be a planned, thought-out, and tested technique. Moreover, the planning must be distinct from the execution, so that in education "experts" plan and teachers carry out. The underlying faith is, therefore, not so much a faith in "Science" in the pure sense, as Newtonian Europe understood it, but rather a faith of the Baconian kind in "studies for the relief of man's estate"

The contrast with Europe is most striking, and because of it Americans are too apt to assume that European education is a thing of traditional routines, uncriticized and undynamic. But such a view leaves out two vital considerations. One is tradition, which, so far from being a dead hand, is really a whole rich treasury of resource, operating within the school and without, even apart from any qualities of training or personality in the teacher. The other is the teacher himself, required to be his own "planner" rather than the willing executant of the plans of another. Europe tends to combine in the teacher two functions that America tends to separate

But the American way is the American way, marked by the planning, experimental "making" spirit that is so distinctive and, with all its aberrations so promising. The price has to be paid for it, as we shall see but a thing so native is, in itself, beyond criticism, and must just be accepted.

American dynamism is however, imperfectly understood until it is related to American democracy. There is no inherent reason why democratic equality should always work itself out in a strongly individualistic form as it has tended to do in America. It might have taken a strongly collective form as it has for instance, in Denmark. The special reason is to be traced, perhaps in the facts of economic history, particularly in the rapidity with which the Continent was occupied and the resulting strain to which the social tissue was subjected. Whatever the cause, democracy has taken an individualistic colour and this fact, taken along with the dynamism already discussed, accounts for the main features of American life and sets the problems which the educator has to solve

Optimistic dynamism and individualistic democracy when considered together, will be seen to make intelligible much that is characteristic of American life The vigour and effectiveness of "private" efforts as contrasted with the cumbrous and often unreal action of "public" authority, the bewildering variety and continual flux of group-life, with its ceaseless rhythm of break-up and re-constitution, the deliberate making of planned communities that insist upon escaping from the plan, the standardization which issues from a compounding of the blue-print methods of "planning" with the equalitarian spirit of democracy, the too ready facility with which blue-print formulæ take expression in legislation all these may be taken as illustrations of the conjoint action of the two dominant forces Together they do seem to sum up most of the conspicuous manifestations of the American way

What, then, of the task of education in such a setting? It is clear that no education can be properly American which fails to take account of these two forces. For the promise of the American Experiment consists precisely in the full development of them both. To go back on them would be to give up the experiment. Thus limits are set to the extent of American imitation of other models.

But, granted that education must take full account of these factors, in what form should that be done? A phil osophy which substitutes for a real intellectual grip of its problem a docile watching and an equally docile following of "trends", is apt to suggest that the task of education is to open out for Dynamism and Democracy more and more channels of free operation. There is sense in which this is true, but the task is not fully understood if the all important need for criteria—for criticism—is overlooked. Fulfilling the American experiment is not like watching a boiling stew pot, it is through and through a matter of active critical control.

This problem of control is then the real focus of all American education that claims to be at once American and constructive. As the life of the Continent matures, difficulties accumulate, as world relations grow in number and importance and an age of consolidation succeeds to an age of expansion, the problem will become more insistent, and its influence on the American philosophy of education will become more marked. The term "Discipline" is not popular among educators in some quarters and among others its true import is not well understood. Nevertheless, in my view, it is the key word to any philosophy of education that is capable of meeting the real demands of the time.

This article may very well conclude with some attempt to indicate the *form* in which the issue may be stated. It can do no more. But some clarification of what should be the focal point of all our thinking is so well worth while that even a brief attempt at it may be justified.

The choice before us is not one between control and no control. It is a choice between a control accepted by critical intelligence and a control forced upon us by our own blind passions. Americans are discovering that no one is less free than the libertine, and that no one is more free than he who has found his true obedience. A genuine Christianity has always taught this as its central lesson, the produgil was a freer man when he "came to himself" in poverty and dejection, than when he was "seeing life". His freedom began when he accepted a discipline that was really the absolute and necessary condition of his own well-being

Absolutes and Categorical Imperatives are not popular in pragmatist America. The Absolute is suspect as the archidiabolus who enchains Promethern man. But there is precedent to suggest to us what happens when we exorcise devils by the aid of devils. Seven other devils, more wicked than the evicted one, return to take his place. The expelled Absolute makes room for troops of false Absolutes that enter in and dwell there—standards of obligation accepted quite uncritically and obeyed to the soul's destruction. Can we not see them all crowding in? Sheer Bigness, who destroys quality for the sake of mass, crude Success, who orders us to win at all costs,

whatever may happen to the rules of the game, the vicious imp who lurks in the cover of that sinister phrase "Getting away with it", the moral and spiritual stand ardization which is the misbegotten offspring of mental indolence and fear, the pseudo science which would substitute formalized technique for the fullness of life these are some of the most conspicuous of the trooping would be tenants of the vacated soul

Sometimes a philosophy of "Growth is put forward as providing a whip wherewith to chase the demons. But so far from being that, it may be just the wide open door through which they enter I or either the term is empty of concrete meaning here and now giving no significant guidance in the actual circumstances or it is given a concrete meaning uncritically and used to sanction proce dures which, from the standpoint of actual concrete needs, are misdirected and misconceived. A Montreal pupil would "grow", presumably if you taught him Sanscrit, so he would if you taught him French It is not Growth that decides your choice, and when we are looking for working standards of discipline a purely formal concept of Growth either gives us no help or misleads us by tempting us to confuse our private prejudices with a universal principle "Growth' is like the Aristotelian doctrine of the Mean, it is a test to be applied to decisions taken and actions performed on quite other grounds not itself a source of concrete guidance

When we turn uside from empty notions and took at the historic evolution of American life itself, we must feel that all the best and most promising features in that life have sprung from the operation of real absolute standards. The great Americans so far as I can judge were never relativists. They had far more of Socrates than of Thrusymachus in their composition. A certain austerity a sort of refined primitiveness and a broad often whim sical tolerance, these were their outstanding characteristics. Jefferson is a type. They lived steadily in the light of absolute standards. "I not justified runt coelum, was their creed, and the game of life for them consisted in the knowledge and observance of its rules rather than in the winning of it by any means that came to hand

With them in view one is tempted to say that a sophis ticated and relativist America is a de natured America which has lost its way and departed from its true mission

But the Hound of Heaven still pursues and his deep bayings have become somewhat louder of late. His majestic instancy cannot easily be avoided and signs of a return to Discipline are appearing

There hes the danger, and there too hes the supreme duty of the educationist to reach and define a concept of Discipline that will avert the dangers and satisfy the real need. There are examples enough in history to show that when the need for discipline is felt the false disciplines get their chance.

Dictatorship of the overt kind scems out of the question in America, though covert dictatorships seem less impossible. Nor is much to be hoped from a Neo Humanism that is a little too contemptuous of common sinful man a little too Phanicalal in making broad its phylactericand a little too ready to forget that a head in the heavens of severe classical intellectualism is lost if it is not connected with feet planted firmly on the earth of Nature

and the common passions and interests of men. The philosophy of discipline that we need is one for the workshop and the market-place and not for the study alone.

If it is not found be sure that substitutes for it will inevitably operate. Man must have standards to live by and if he cannot or will not achieve them critically on a long view, he will pick them up uncritically on a short The favourite just now seems to be "science' 791 T interpreted as a source of formalized and fool-proof techniques of life and action The influence of a machine age is plain enough here. Almost literally the iron of the machine enters into man's very soul, and converts his thinking into the cold geometry of chilled steel So the scientist becomes a sort of tribal magician to deliver magics for the relief of man's distress and thus a false finality is given to life's ever-growing techniques interpret the life values of science is part of the great mission of America, and a just estimate of the controlling validity of science is a necessary condition of the discipline we seek But misinterpretations of the meaning and purpose of science, and illicit extensions of the range of its authority tend to defent rather than assist the object in view

Valuable and necessary as the achievement of scientific techniques may be, the real need of the moment is to be met rather by the methods of critical philosophy. What we have to do is to think out afresh the problem of Freedom and revise pretty drastically our inherited notions of its conditions. For a right knowledge of the conditions

of Freedom 18 Discipline, or at least the condition of any Discipline that does not involve slavery. By that critical process all our established life-attitudes will be affected patriotism, acceptance of science religious tradition the economic system school administration — all will be concerned together with many others. A slow but sure revaluation throughout our common life is involved, and the instrument of it can be only a real liberal education of the critical intelligence. Teachers really free and educated (not merely "trained") must be the directors of it, and thus it is clear that a genuine autonomy of education lies at the heart of the problem

A certain disorderliness together with a certain primitiveness will always be characteristic of a healthy American life. It will have ceased to be itself when it loses them, when it becomes neat and tidy, sophisticated and dead. But a healthy disorderliness without—the witness of active intelligence—is a wholly different thing from deadly lawlessness within. The two are often confused, and not only by observers from outside. It is the lawlessness, not the disorderliness that constitutes our problem. Its conquest is the true vindication of Treedom, and the positive weapons of a liberal education are the only instruments of warfare that will not destroy the sought-for-prize itself.

When the conquest has been achieved in all the main theatres of American life, America will have a Tradition Then the world will have to look elsewhere for a labora tory for its next experiment. At times I wonder whether that will be Africa, with colour as its chief interest

### HEALTH EDUCATION

BY WILLIS A SUTTON
Superintendent of Schools, Atlanta, Georgia

A MERICA must realize that there must be a wholeness and completeness to education that embraces
the all important matters of health, scholarship, and
character In this paper I shall discuss the one phase of
health. We must preserve health, we must foster the idea
of thorough, painstaking mastery of subject matter and
straight thinking, and we must make both conserve and
develop strong moral character. The duty of a school
superintendent is to foster, promulgate, defend, propose
and execute, as far as possible, such a program for the
adults, as well as the children of a community

It is evident that the preservation and strengthening of our physical inheritance through health is one of our greatest duties Sickness, as a drain upon our economic resources, deserves first consideration Dr Ira Dublin, statistician for the Metropolitan Life Insurance Com pany, shows that sickness costs America annually about seven and one half billions of dollars. This is about twice the cost of the entire United States Government It is about three times the combined expense of all the forty eight state governments for every cause. One year of sickness would support the present educational facili ties for three years on the present basis or provide three times as good facilities for one year Remember that this is the cost of that sickness which becomes so acute that the individual must stop work, how much the cost of the ordinary cold and other so called mild sicknesses which reduce our working capacity, though we remain on the job can never be estimated

The amazing thing in this enormous cost is that eighty per cent of this sickness is clearly and easily preventable through proper education in the home, school, community, and church. Does not the economic side of sickness make its banishment a subject of first rate importance in the thinking and work of a school superintendent and school board? If education could reduce sickness by fifty per cent it would pay the educational bill of the United States two and one half times

It is most difficult to separate economic and social problems, but if the latter could be analyzed as objec tively and concretely as the former you would find that sickness is not only our greatest economic drain, but our greatest enemy to social progress Sickness breaks up the home Of two hundred seventy seven divorce cases in a recent court a social worker discovered that sickness was the direct cause of one hundred and forty three and a contributing cause in many others. The sickness of father or mother interferes with the orderly running of the home, disturbs the family life The cost of death and burial often takes the place of the cost of a year in college or high school Sickness of either parent takes the girl out of school and places upon her shoulders prematurely the running of a home The father's illness robs the boy of high school and college, takes away the pleasures of boyhood, sours his life by undue strain and responsibility

No tornado is as destructive of human life as an epidemic of smallpox or "flu" No drought in America has ever produced the disastrous social effects that an epidemic of measles or diphtheria has precipitated, no pest or boll weevil or "hoof and mouth disease" or 'fruit fly" ever wrought the social or economic havoc of tuber culosis, and vet municipal, state and national govern ments have met these emergencies with millions of appropriation and armies of workers, with punctilious and aggravating quarantine treatment and inspection. But public health has ever been but poorly supported by city, state, or national government Decaying fruit, accumu lated masses of sick cattle or a thousand homes wrecked by a storm are objectified and made concrete by their very materiality and money costs. But acres of tomb stones and grave markers with "age one year" or "age forty years" seem to make but little impression upon the social and economic consciousness of America

### THE NEED FOR INSPECTION

As Superintendent of Schools, I have conceived of and taught that there are three great phases of our health program in Atlanta

Tirst, there is inspection. The government requires in spection of trains, elevators, machines dealing with the public. Individuals think in terms of inspection for automobiles, furnaces, electric transmission and power lines. Adults and children should have at least an innual in spection by a competent physician and dentist. Cer tainly teachers and children in public schools should be inspected at public expense. If the State of Georgia has a right to force a child to attend school, and if health is the major factor in individual and racial education surely the state should inspect its children for their individual good and for the protection of those with whom this associate. This is the basic philosophy upon which we have stood in insisting that our children, teachers, and employees be examined at city expense.

It is strange how willingly we pay for an inspection of a title to our land and how reluctantly we pay for an inspection of the title to our most valuable possession—our health. Practically every man will insist upon an inspection of his title to property, not five per cent will insist upon inspection for health. He who can convince men and women of their need of health inspection and who leads to periodic inspection of children is a greater philanthropist than he who donates millions to a hospital to treat the sick. One is curing, the other preventing America needs more preventiveness and fewer hospitals. This is our message for Atlanta and America.

The second division of our health program is correction. Whatever defect the inspection discloses should be corrected immediately. If allowed to remain, it becomes a barrier to development, a weakening of the entire physical

man, and in cases of many diseases a means of infection It is worse than folly to inspect without follow-up In this field, we need the cooperation of the home, the community, and all organized social agencies In Atlanta we have tried to make all feel the responsibility for correcting a child's defects Just as the city or state should pay for inspection, here the individual parent should pay, wherever able for corrective measures The city or state should not be expected to pay the expense of filling children's teeth or paving for the physician's bill After inspection, the first responsibility belongs to the home The ravages of tuberculosis, the enormous death toll of cancer, the mounting death rate from kidney and heart troubles could be very materially reduced or practically obliterated if minor defects and incipient tendencies were corrected. It is passing strange how much attention the state and the individual will give to the correction of defects in lands and properties and how little they will give to the correction of physical, mental, or moral defects in people

It is the business of the schools to educate Surely no greater demand comes upon us than to educate to save life. If a child falls in the way of a rushing train or speeding automobile and someone risks life to save the little life from destruction, we rightly proclaim the hero and award the medal. But daily the public health nurse in the street or school, the white-capped savior of childhood in room or ward, snatches thousands from death in the common every day experience of life and few approve or commend. The classroom teacher, who by daily admonition secures the care of teeth or the removal of tonsils, becomes a greater savior of life than she who ministers in shell-torn fields or trench hospital

The chief value of correction and that in which the school is preeminently interested is education — training the child to act on the advice of a competent physician This habit must be inculcated by five agencies

### FIVE AGENCIES

- I The classroom teacher must be interested in the health of the child As in character education, vocational guidance and citizenship training, here the classroom teacher is the chief health advisor. She sees the child every day, she observes him most carefully knows his weaknesses and strength The results of inspection should be known to her She should be first to urge cor-This must be accomplished in such a way that no child will be embarrassed or be made morbid about his condition The child is a whole child, the teacher should see him as a whole and teach all of him She must. therefore, be charged with the responsibility of getting the home to apply corrective measures The teacher must make contact with the home for the home alone can approve and accomplish the correction
- 2 After the teacher has done her lest the nurse should take the remaining names visit the home, talk tactfully with the parents, urge the correction. This will usually effect the results desired
- 3 If teacher and nurse have failed the principal should try There will be but few cases remaining if the principal has secured the proper relationship with his patrons

- 4 If these three agencies fail, then a painstaking committee of the Parent-Teacher Association should strive to secure the correction
- 5 If all of these fail, the superintendent should by letter and visit prevail upon the parent to have corrective measures applied No discovered defect should be allowed to remain uncorrected. At least an attempt to correct it should be made. The principal defect of the majority of health programs has been in the corrective division Many school systems have been content when they have secured medical and dental inspection and have notified the home. Somehow we have felt that here the school responsibility ended Not so! This fallacy again grows out of our failure to recognize our responsibility to educate the whole child For a hundred years we have thought of educating the mind of the child Now, we must realize our responsibility to a whole life might as well give a child a test to determine his knowledge of English and send a notice of his defects to his parents and leave the matter there The purpose of a health program is not medical and dental inspection alone, it is sickness prevented, life conserved, the child made over as far as possible

### PREVENTION

The third, last, and most important part of a health program is that it should be preventive. In order to prevent sickness we must get our philosophy straight. We must believe that sickness can be prevented. We must believe that health is the normal state of man. I thank God that I can envision a sickless world where babies enter in health, grow to adulthood, maturity, run down like tired men and women, sleep, and breathe no more. The conquest of disease will come as rapidly as our faith and knowledge increase, and knowledge is the child of faith.

I shall suggest four or five preventive measures that must be applied by the diligent superintendent and by the community health program. We must put to work the little knowledge which we have gained and while it may be exceedingly small, as compared to that larger knowledge which is undiscovered, it is exceedingly great as compared to the knowledge of the past. It is as much the business of a school system to teach the application of the formulas discovered by Pasteur, the great scientist of the ages, as it is to teach a language or mathematics. Our first obligation therefore, is to put into practice what science has discovered

There is no need that any child should ever die from diphtheria, small poy should be unknown, for a community to have a case of typhoid fever is to indict itself for criminal negligence. Recently, new ways and means of preventing the awful ravages of tuberculosis and cancer have been announced by the medical world and the great death rate from kidney diseases can be prevented by the use of the discoveries which modern medicine and science have given us. We have magnified the lives of men who have caused the death of thousands and millions upon the battlefield, let us exalt the lives of those who have through their knowledge saved and will continue to save millions of lives through the discoveries of science, and

et us teach in every classroom, from kindergarten through all our adult work, that man must prevent sickness by applying the great discoveries which modern science and the world of medicine and surgery have revealed to us

Another important preventive measure is to educate the childhood of a community to the need of pure water clean streets, samitary sewerage, the rightful inspection of teeth defects and the cooperation with the medical and scientific agencies that are insisting that the Government shall enact and enforce laws that will protect society against bad milk, bad water, bad food, or bad sanitary conditions of any kind. If children were actually in structed in these affairs as assiduously and as carefully and as conscientiously as they are instructed in Latin or mathematics, the state of the world would be very different to day

Here again I must stress that all of this must be educa We must not simply see that the child has these modern discoveries applied to his own life, but that he is educated and trained so that he will apply these same principles to his own children as they come into the world As far is humanly possible, all of these services should be rendered by a family physician and by a family dentist Again I must emphasize the fact that we are training people, not pruperizing them, that we are build ing constructive citizenship, not teaching people to de pend upon a patriarchial form of government, that we are training men and women to think and to act for them selves and not to be dependent upon a state, county, or city The most important education in the world is that which engenders thrift, independence, and self reliance in the soul of the student. For those children whose parents are absolutely unable or who are positively unwilling, the clinic must and should be provided, but this should be for a decreasingly small number

In the fourth place, prevention will come largely as we understand how the body is built, and what foods support it best. The knowledge of food is possibly the greatest preventive of sickness. Home economics departments correctly manned and actively carrying out the right principles with regard to food and clothing should decrease the death rate and multiply the efficiency and use fulness of our citizens.

### THE IMPORTANCE OF SLEEP

Sleep is a great factor in preventive medicine and in building the health of a child. We must understand that sleep plays an important part in life throughout its entire span. Many people get the idea that children need sleep but that older people do not. It is an awful travesty on our society that we have more men and women in the insune asylums of the country than we have in the "\" grade colleges of the United States. Much of this may be due to lack of sleep. Sancho Panza said, "Blessings on him

who first invented sleep," and Shakespeare declared "Sleep, that knits up the ravell'd sleeve of care". It is the business of the teacher to teach the child how to sleep. Cur homes need to be built in places where we can rest in quietude. How different the refreshment that comes from the sleep of a night spent in a quiet country place from that of one spent in a noisy city hotel. We may have I cen unconscious all night but the restfulness of our sleep has been disturbed. We are to teach that our residence sections are to be away from the noisy street from the blare of the automobile horn, from the rattle of the street car from the noise of trucks, and that we are to have hone esituated where quietude really comes and rest restores the tired mind and body.

New social planning must begin in the life of vound children that they may understand and know the need of sleep. I once had an opportunity to 1-k Mr. Ldison how long he slept, and he made the very significant reply—"I sleep whenever I get sleepy." In my opinion we have taught the wrong lesson from the life of Thomas A Loison. There may have been periods in his life when he did remain up and at his work through sheer interest. In twhenever he became sleepy and tired he relayed and slept and so his mind was abundantly able to carry on his work. The proper amount of sleep, taken under the proper conditions, will bring to the life restful refreshment that will recreate and re invigorate both mind and body.

### HI IRS OF ALL THL AGES

Above all, we should teach the young hoy and young girl that they are heirs of all the ages, that what they are has not come to them as a result of their own actions but by the accumulated activities zeal hardshood and strength of multiplied thousands of ancesters, that his body belongs not to him alone but to them and that he must be true to the past. The child must be trught that there is a future — not only to be lived by himself but to be lived by his children and his children's children and that if stronger children are to be lorn to him he must pre serve the physical inheritance which he has received from his ancestors and must strengthen it. This philesephy can be taught in a hundred ways by the home the community and the schools and it must be taught. We are giving our boys and girls the wrong conception of life We are filling our mouths with "don'ts ' when we should be filling them with encouragement and exhortation to We are continually saving to our children -"don't don't, don't" when everything within them is rising up and saving - "do, do, do" We are continually reminding our children not to drink not to smoke not to curse not to be immeral. Instead the great challenge should be thrown down to them to live a life that will count through the ages

### THE CHILD, THE FAMILY, AND EDUCATION

### B1 LOIS HAYDEN MEEK

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THE problem of guiding children in their activities L becomes increasingly interesting and challenging New materials, new realms for adventure, new things to investigate are constantly being made available Furthermore, we are beginning to understand children better We see them not as mental machines that must be run efficiently and rapidly through certain mental disciplines but rather as living human beings with likes and dislikes, fears, yearnings, jealousies inadequicies, and sympathies In the past, only the very wise teacher saw how undernourishment was related to failure in Latin, or how a highstrung nature contributed to poor examination papers To-day even the inexperienced teacher is expected to be able to see beyond her pupils' surface behavior, and to fathom the complicated underlying currents She sees them physically active and buoyant with health, or pile and mactive, fatigued and nervous The modern teacher is concerned with each child as a totally reacting organ ism, with physical, mental, and emotional life interacting and interdependent

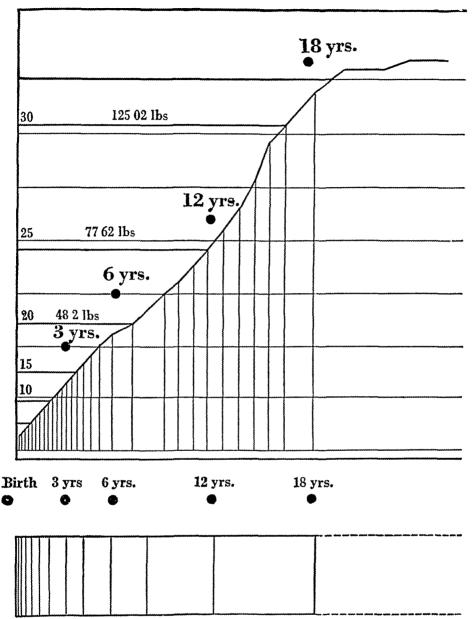
The conception of child life implies that at any one moment in a child's life what he does depends not only upon what he knows or has learned, but also upon his physical condition and his emotional condition. A fifth-grade boy who has had a breakfast of orange juice, oatmeal, softboiled egg, toast and milk, in an unhurried atmosphere, with no nagging or quarreling, and who had ten hours of sleep during the night, will come to school in a state conducive to good learning and wholesome activity Whereas another boy who had only seven hours' sleep in a stuffy warm room who had to be called five times and then scolded by his father before he got up, who made a hurried inadequate toilet and then swallowed quickly some hot biscuits, marmalade and coffee while his mother nagged about his many misdemeanors and his father argued with the mother about her lax discipline and indulgence of the boy — comes to school in a nervous, emotional, fatigued state that will prevent him from learning, make him unpleasant towards his school fellows and generally unsatisfactory in school In a word, a child cannot be dealt with on the basis of his mental age alone Intelligence tests have been a great aid to teachers in helping them adjust school work to the ability of students However, it must always be remembered that besides intelligence other factors influence learning greatly, such as the personality pattern, the emotional condition at the time, general physical status, and present interests or drives. Unless the teacher adequately understands child development from this balanced and total point of view, we will continue to find in our schools children who can read but who don't like books, children with normal intelligence who fail in six-grade arithmetic, children who know social science but who never can take part in discussions, children with high I Q's who are lonesome and unhappy in school life, children who steal, play hookey and run away from home, children who are kept back year after year but have an IO of 120

During the past few years several interesting studies have been mide of school failures, to determine the causes. In a Baltimore public school 35 children were reported by parents and teachers to be having difficulty in keeping up in one or more school subjects and to be difficult children to handle. Examination showed that only 16 were mentally retarded. The remaining 19 were found to have certain personality difficulties such as shyness, laziness, inattention, sensitiveness to criticism, daydreaming and fears which seemed to be the causes of failures in school

Practically every school climic has had one case of a "non-reader" whose poor habits in reading were primarily due to his need of eye-glasses. We also have begun to accept without much question the fact that infected tonsils, nasal drip, mal-nutrition and other physical defects may have a decided effect upon general behavior including personality as well as school progress. This understanding of the child as an integrated being with all phases of life constantly interdependent and interacting is probably one of the most fundamental in all education. It is this conception of integration that has brought psychologists, nutritionists, pediatricians, psychiatrists, nurses and educators together in an effort to study child development in some of the research institutes in the United States.

Another important aspect of child development and one closely related to that of integration is continuity Continuity implies that each moment of a child's life is inseparably tied with the past and is basic for the future who is born has had nine months of growth before he comes into the world The period of embryonic and fætal growth is one of the most fascinating because of its great rapidity In the short span of 280 days the average baby develops from a microscopic organism only 1/125 of an inch long to a baby from 17 to 21 inches long and 5 to o pounds in weight During the first month of life the rate of growth is 9999, but by the 9th month the rate has decreased to 45 The accompanying chart from Gesell shows the rate of human development from birth to 18 years of age

Such a diagrammatic presentation indicates clearly that human growth is a continuous process with a gradually decreising rate of development. It shows that the proportion of development attained at the age of 6, when the child enters school, is three times that attained in the next twelve years of his school life. These first six years have great importance developmentally. The full significance of growth during the first six years stands forth vividly when one compares a newborn babe with a six-year-old child. From a helpless infant he has grown to a dependable child. In motor development we find him at



From 'The Menial Growth of the Pre School Clild by Arnold Gesell By permission of the Ma millan Company fullisters

### GRAPHS OF PHYSICAL AND MENTAL GROWTH

The upper figure is adapted from Minot's graph, showing the physical growth of man from birth to maturity with vertical lines added to mark the duration of the periods required for each 10% addition to the weight. (See Minot 1ge Growth and Death, Putnam's N.Y.)

The lower figure illustrates the arrangement of developmental intervals. Beginning at 3 months these intervals are so placed as to yield the following sequence of developmental quotients 34, 36, 34, 23, 34, 35, 34, 23, 34, 35, 35. There is an analogous concentration of mental growth in infancy. The older the child gets, the longer it takes to develop a proportionate amount

birth unable to hold up his head without support, but accomplishing this by the time he is four months old. At nine months he sits alone and crawls, by one year stands alone and walks. New motor feets occur then in rapid order going up and down stairs, climbing, running, and before six jumping, hopping and often skipping. He can, during these years also, if opportunity is provided, learn to be expert on the swing, the slide, the jungle-gym, teeter, jouncing board, etc.

His social development during these first six years is just as startling The newborn gives no sign of social interest, his response to people being undifferentiated from his response to other objects which have qualities of temperature, pressure, resistance, etc Even his smile is only a reflex, not until the second or third month does he smile in response to clucking or an adult smile Gradually during the first year the baby's smile becomes more and more a method of communication By the time a child is three or three and one-half, he has learned most of the tricks of social intercourse Children of this age show definite personality traits such as being popular with other children, making friends easily with adults, retiring from social contacts, seeking companionship of other children, being accepted or rejected by them, being sought by other children They have learned how to get what they want from others by smiling, or bullying, or fighting or asking politely, or crying and screaming, or distracting the other person's attention These various methods they use in quick succession as the occasion may demand

By six a child will also have learned a host of routine habits which have to do with eating, eliminating sleeping washing and dressing. He will have learned ways of solving his problems asking mother to do it, crying or having a tantrum walking away and leaving it manipulating, trying new methods, sitting still and doing nothing. His language will have increased from the initial birth cry to a vocabulary of some 1500 to 3000 words. He can express readily all his interests and desires and exchange experiences with his peers and adults.

In fact, our schools receive five- and six-vear-old children into kindergarten and first grade with literally hun dreds of habits well established with definite personalities, with abilities and interests developed along many lines. Teachers are realizing that in order to guide these children effectively in school they must know something first of where the child is in his development, and second what his developmental history has been during the years before the school has seen him. Many schools are providing for conferences between teachers and parents before school entrance in order that teachers may gain this insight into the developmental history of the child

Furthermore we are finding some educators who believe that it is important not only that teachers should know about child growth during the preschool years but also that they as educators should have some part in guidance during this period. Nursery schools for children two to five are offering in many communities opportunities for parents to receive help in the guidance of children during these important years. Some of these have been called guidance nurseries because they have a flexible time program for the children in terms of the family needs and offer to parents help in the home and conferences on

special problems Often study groups for parents of preschool children are conducted by the school before the children are ready to enter in order that help and guidance may be given. In this way the school is realizing the importance of continuity in education.

If we accept the principles of continuity and integration we read ly recognize the importance of home and family life on child development. It is sometimes startling to teachers to realize what a great advantage the home has over the school in the matter of time alone A child is in school about five hours a day and under home guidance about eighteen hours Part of this time is spent in eating and sleeping, but these are important periods from the standpoint of child development The nutrition of r child is fundamental to good physical health and also to good mental health Dietary and food habits depend upon the home The hours of sleep sleeping conditions, and the child's habits of going to bed sleeping soundly, and rising promptly affect not only physical condition but personality as well If the school through its health pro gram is fundamentally to affect child life it must do so through working with parents Parents are in control not only of the nutrition of children and habits of sleeping but also of personal hygiene including cleanliness, habits of elimination and the spread of infection among the family

School people talk a great deal to day about educating for leisure without seeming to realize that the child's lessure time is spent outside of school. Parents are the ones who really are guides of a child's leisure It is they who decide whether it will be spent on the street in his own home or a neighbor's yard, in the library, in fields and woods, in the movies, or under supervision of the scout lender, YMCA secretary, or camp director Someone has said that "hobby-less children come from hobby less homes" Unless parents have active, creative interests during their leisure, children will very likely rely exclusively on the movies detective stories and the auto for their diversions or will depend upon some organization to direct and plan their leisure. If teachers are interested and concerned with the leisure activities of their children they must work with and through the parents of these children Some schools are making the school the center for adult recreational activities in the evening Swiming pool and gymnasium pottery, metal and wood work shops, duncing, music and art studios, photography studios are open for parents and adults in the community In this way parents have an opportunity to build leisure interests that are in a real sense creative and re-creational Such parents have rich resources to stimulate their own children in wholesome leisure activities Recently there have appeared in current periodicals lamentations by parents that they have no influence in their children's lives because school, scouts and camps - organized and professionally directed - are absorbing all the time of a child leaving him no time to be free to choose. This kind of criticism is only too true, but the best remedy for such regimentation of leisure is a home rich in opportunities and parents vigorously interested in active play

Another phase of the development of children in which the home has a peculiar influence is in emotional development—personality—We in America have long given

perfunctory praise to the home as the center of influence on character It has been only in rather recent years that the plea has come for schools to enter upon the field of character education. This plea has been justified on the basis that the home has not been doing its job ade quately and that the school must enter in order to prevent increase of delinquency, to insure better young people Is this justified? Certainly if we turn to the results of studies of juvenile delinquents we must admit the truth of the major premise — the home has failed in its ancient task of character building Miniam Van Waters of the Juvenile Court in Los Angeles says in I outh in Conflict, "In three generations of American family life the goal has changed from rearing healthy active children to goals of modern business Children are prematurely encased in brick an I stone Routine is dull, monotonous Need for adventure is not met. These boys and girls become in corrigible steal he, run away, throw morals overboard' In a group of boys and girls studied in Boston the following conditions were found to be either direct or contribut ing causes to the delinquent behavior, unknown parent age, failure to give proper education in sex matters, lying and misrepresentation to children by older people es pecially parents, use of profine or suggestive language in the home. It is noticeable that all of these indicate a failure of the home to do its pirt but the author states that more significant than any of these was the lack of close sympathetic confidential relationship between the parents and the child Turther evidence of the fulure of the home to meet its responsibility in personality develop ment can be found in the case studies of problem children in school presented by Sayles Of the twenty six cases of failing and maladjusted school children there were twenty whose personal difficulties were definitely allied to home conditions and parental attitudes. The evidence is still more vivid when the child with the behavior problem is of preschool age It is probably quite fair to say that in practically all cases of stealing, tantrums eating problems running away enuresis, nightmares, masturbation nail biting among children below six, the home indparents are primarily responsible Dr Thom has said "The home must be considered the workshop in which the personality of the child is being developed and the personalities of the parents will make up to a large extent the ment il atmosphere in which the child has to live. This mental atmosphere may easily become contaminated and quite as dangerous to the ment il life of the child asscarlet fever or diphtheria would be to his physical well being"

Evidence could be piled up to show that in many American homes to day children are not receiving the kind of guidance which leads to well rounded personality character able to cope with the vicissitudes of modern living. What then is the school to do? Certainly a concern for the total development of the child will help, a consideration for all aspects of the growing personality of each child is essential. Character education of this type is basic to all the interests and concerns of the school. But at the same time we must remember that unless children are taken out of the home as in the English boarding school, the home and family will still have a primary influence on character. No matter what the program of the school, the program of the home runs on with its great

potentialities for good or bad. The solution vould seem to lie in the responsibility of the school for family and parent education Changed adults in the home will mean changed children Parents who understand why children behave as they do what effect parents attitudes and be havior have upon children how personality is the effect of environmental influences-parents who have a conception of their own influence upon children's character will have a basis for improving family life. In many cases the difficulty in the family group is due to a faulty parent child relationship such as an overbearing father a solicit ous mother, a mother who wanted a girl instead of a box i father who dislikes children. Sometimes this becomes complicated because of the relationship between husband and wife such as a suspicious jealous husband a ragging wife, an unloved wife, a cold austere husband. A third factor may be the relation of either father or mother to his or her place in life such as a mother who give up a good job to get married and who hates housework a father who is a poet at heart, sensitive beauty loving but whose job is selling automobile tires. Such conditions are bound to react directly on children in the home Parents can be helped to see these situations more clearly often to work out a solution together. If schools really are sincerely interested in character education they must plan through clinics and through parent education to help in the solution of problems of family relationships

Less and less is it possible to separate the responsibility of the home and the school for child growth and develop ment. Unless the two work together intimately and constructively there will continue to be school failures. Lick of character education, poor health and hygiene unwhole some leisure interests.

#### A PROGRAM FOR SCHOOL-HOME RELATIONSHIPS

The school must, therefore take the initiative in working out an adequate program for school home relation ships. Such a program means conceiving education on a broader basis than heretofore. It implies teachers and idministrators who understand the vital factors in child development and have a sympathetic appreciation not only of the function of the home but of its problems of adjustment to modern society. Below are some suggestions

- I Provision for conferences between parents and teachers
  - a Before school entrance
    - So that teachers may secure a picture of the developmental history of the child and may begin to know something of the personal ty of the parents
    - 2 So that parents may learn about the new institution which is to share in the guidance of their child its program equipment, and personality of the teacher
  - b Periodic conferences scheduled during the school year
    - 1 For exchange of information regarding the child's progress

- II Provisions for conferences between various specialists and parents
  - a With pediatrician following medical examination to discuss findings of examination and recommendations
  - b With nutritionist following dietary study to discuss adequate diet, plans for balanced home and school diet special food problems
  - c With psychologist following mental examination to discuss special talents, grade placement, etc

#### III Visits of teachers in the home

- a To understand present home environment of the child
- b To observe the child in his home activities
- c To study the relationships of the child in the family group

#### IV Visits of parents in the school

- a To understand the school environment of the
- b To observe their child in his school activities
- c. To study the relationship of the child to other children and to the teacher
- d To observe other children in the same environment

- V Parent participation in school activities
  - a That parents may consider themselves a part of the school and identify themselves with its activities
  - b That parents may learn through participation how to guide children's learning
  - c That parents may enter into the lives of their children through excursions, dramatic plays, etc

#### VI Group meetings of parents

- a Large group meetings
  - 1 Periodically to discuss school activities
  - 2 Periodically to hear lectures by outside specialists
- b Study groups for special groups of parents
  - I Who wish to study modern trends in child development and guidance
  - 2 Who wish to study modern social trends and their effect on the family

#### VII Recreational facilities for parents

- a For physical recreation such as swimming, basketball, etc
- b For creative activities such as shop work, photography, painting, modeling, etc
- c. For play such as dramatics, dancing



"Where Children Learn" Horace Marr-Lincoln School

## TRENDS IN MODERN EDUCATION

#### By MILDRED ENGLISH

Superintendent, Peabody Training School, Georgia State College for II omen

DUCATION in its true sense is the organization of all of the experiences that mold the life of the individual and the community. The school is one of many educative agencies—the home, the church, the street, the industrial world, the social and civic life of the community, the museums, the art galleries, the movies, the radio, and many other agencies, contribute to the educational program of a community. The school must become familiar with these agencies, it must reach out into and draw from the community, if it is to serve the best interest of the child

The modern school has a place in the society which its children are to compose. It must recognize its place in the educational program and accept its responsibility for fitting children for this society. At the same time the school must endeavor to direct, to change and to make better the society of which it is a part

Education is changing more rapidly to day than ever before. We face a world that is changing. Modern in ventions and the wonderful applications of science have brought about changes in industry, in conditions of living, in every phase of daily life. In the early days of this country the children had a share in securing the necessities of life. Food, shelter and clothing were obtained by the home or the immediate community. The child had a part in the life and work of the home and learned to accept responsibility with the other members of the family. In the modern world much of the work of the home has been taken over by the industrial world and the home no longer furnishes the rich educational opportunities it once did.

The same is true of industrial and social life. The world to day is different from the world of vesterday, and the world of to morrow will be different from the world of to day. The rhythm of the new world is a fast one and the children of to day are finding new problems to face. Thus the schools of to day carry a greater burden than ever before. The traditional school does not prepare one for the modern world. It is only by the close cooperation of all of the agencies that work to effect a change in the individual that our educational program will develop citizens who are ready to meet the needs of a constantly changing civilization.

In the traditional school the aim emphasized the getting of information, the acquisition of knowledge. The curriculum consisted of organized subject-matter for the child to learn, which as an adult he would most need to know. The testbook set before him that which he should learn in the form in which he was to learn it.

To day we recognize the fact that school is life and should approximate conditions under which children should live and work. We are not so much concerned with the subject taught as with the growth and the development of the child. We are teaching children, not subject matter. We strive to provide in our schools real

experiences in meeting life situations and then give the child the subject matter he needs for growth in the ability to meet these situations as the need arises

To grow, a child must be active, he must have freedom to move, to investigate, to try out his own ideas in both work and play, to have many real experiences, to initiate things, to think things through for himself, to assume responsibilities. He must be a part of his group, ready to recognize the good work of the group as a whole and of the individual members of the group and it the same time ready to forget himself in working for the good of the whole

The school should provide situations that will help the child grow along these lines as well as in the ability to use the tool subjects. The only way children learn is to make a thing meaningful. Schools to-day are plained to provide for children experiences suited to their various levels of growth. Every schoolroom should be a place where things happen—better still a place where children male things happen. The child needs to experience something that holds the necessary subject-matter if it is to function in similar situations. The three R's are necessary tools for all people, but if the child is equipped only with the three R's he will not be able to compete with the world to day.

The modern school should develop in its pupils cert in powers and abilities as well as skill and efficiency in the tool subjects. The pupil in the modern school needs to know certain facts and principles of life. To know and understand the interdependence of markind that york is essential to individual and social happiness, that tolerance and open mindedness are essential for group cooperation, that all life adapts itself to its environment and so on. To recognize and apply these principles to new situations as they arise. To know that he knows and to face whatever problems arise with the assurance that he can solve them

The modern school should give to its pupils the power to do with ease and efficiency those things that come to him in his duly life. This presupposes a command of the tools of learning and skill in using them

Every pupil needs to be trught to think to see both sides of a question and to think straight about it. He should be unwilling to accept blindly whatever is handed out to him but should dark to think things through for himself. The good life is a succession of choices as a result of straight thinking.

Another power every child should have developed in him is the power to appreciate beauty in the world about him, to feel things. Lacking this ability he will not be able to enjoy the finer, more worthwhile things of life.

In organizing the curriculum we want to provide for larger learning situations which draw upon all phases of experiences, and make use of all kinds of subject matter. Such situations we call units of work or experiences. This

teaching unit includes the arrangement of materials, experiences, situations the environment methods of presentation the fundamental principles necessary to the solution of persistent problems suited to and interesting to the children in giving them the facts we wish them to get

Care should be taken to see that the content of the course includes facts and informational materials knowledges skills, habits attitudes appreciations—the child's common possession in the elementary school. The curriculum will be constantly changing as an ilization changes for education is that which is happening to boys and girls in the classroom and in the world in which they live

In addition to this the school should encourage the cultivation of the creative spirit the development of desirable ideals, attitudes habits and abilities. By creative work we do not mean alone the development of musicians poets artists and sculptors but the development of the creative faculties that are in every normal human being. We think of the creative spirit as the impulse to do to think originally to meet new situations, to develop along the lines of the practical and the line arts. Such a conception of creative living calls for ideals attitudes objectives goals and standards in order that there shall be direction for the creative effort.

In the modern school in every grade from the first through high school we should strive for a generous amount of the freer activities and the conditions that make for creative expression. We want to put a child into a situation where he will grow happily naturally, continuously. We want to provide experiences that will help the children develop efficient bodies for attacking

physical situations experiences that will develop efficient and correct mental social, moral and emotional attitudes and abilities. Such training we believe to be the toundation of a strong character.

Elementary education has developed in response to certain fundamental and social needs. As the pupil adjusts himself to his school group, is concerned with the welfare of the group is ready to accept responsibility placed upon him as a member of the group he begins to understand and have respect for community needs and organizations. He comes to feel that he is a part of the community and begins to develop a high regard for the rights and privileges of citizenship

## SOME OUTCOMES DESIRABLE FOR GOOD CITIZENSHIP

The Too! Subjects

When people live and work together in large groups, the art of communication is very important. One of the first steps in human progress was the development of oral language. Written language also, has long been considered essential and the art of computation has developed along with oral and written language. When we consider the demands of present-day civilization, the need for these fundamental tools of communication—reading, writing language expression and numbers—will be recognized as essential in any modern school program.

The child's education takes place through the interaction of himself and his environment which results in an inner experience that determines his conduct. He must meet situations in which he experiences the need for subject-matter so that he may learn it in relation to use



• O"Wlere Clildren Leurn" Hornce Marn-Lirec'r School

All of the activities of the child should be so stimulated and guided that they will become educative. In organizing the work of the school around centers of interesting and vital experience formal subjects tend to lose their identity and grow out of large units of work. The curriculum is a series of experiences concerned with and growing out of things of real interest to the child, so related that what is learned in one is of value in other similar situations.

In the modern school subject matter is taught as the children have need of it in a natural situation. Subject matter can never be gotten into the child from without Learning is active. The children learn by doing. When they feel the need for subject-matter, it is given them to meet that need.

#### Reading

Children in the modern school do more reading than in the traditional school. The child's first reading is from charts printed by the teacher about real experiences of the group. He soon goes from this to easy reading from books. Very soon he is able to read to answer questions. "How do the Japanese travel? Here is a book that tells. Let us read and find out." Help and drill in reading should be provided as needed by the individual child or by the group. The modern school is careful to provide plenty of interesting reading material, suited to the needs and interests of the child. Supplementary readers reference books, magazines, and newspapers all are finding their way into the classroom and are taking the place of the old type textbook.

#### Arithmetic

Arithmetic is tied up with the various activities where children have a need for number combinations—the cafeteria the school bank, the grocery store, the circus purchasing materials for the classroom activities—Drill on needed table or rule is accepted as a real task by each child as soon as he understands the need for automatic response

#### Social Studies

Along with creative expression through plan and construction, children get a definite body of correct information about people and things—social and scientific experiences, aspects of industrial life, problems of government, that may be called history geography and natural science. This work forms the core of the curriculum of the modern school. The child's first insight into history comes through actual experiences in his own home and family, the different agencies that go to make his life in the community safe and happy.

#### Science

Every child should have some first-hand contact with nature. He should learn the flowers and birds of his community, the trees and shrubs and flowers. He should be able to find things of vital interest in all of the outdoor world about him. Experiences with living growing things are basic for all children. Who can estimate the value of the education a child gets as he watches a butterfly or moth come from its chrysalis and slowly change from a

wet, ugly thing to a beautiful creature of wings and color, or from his daily observation of the tadpole is he becomes a frog or from watching the tiny plant come from the box of earth in which the seed was planted? The classroom of the modern school gives much attention to nature experiences for children through aquariums herbaniums, and terraniums

Elementary education is not static—it changes to meet the needs of a changing world. Natural science is a part of every school program. Science is developing so rapidly that there is need of developing a scientific attitude a critical mindedness, the ability to think thin, attitude a critical mindedness, the ability to think thin, attitude a critical mindedness, the ability to think thin, attitude a critical mindedness, the ability to think thin, attitude a critical mindedness, the ability to think thin, attitude a critical mindedness, the ability to the modern school is to develop a think ing people. I ducational values that are permanent are not factual. From living and working together we get many of the most worthwhile values of our present educational program—cooperation responsibility to the group ability to give and take criticism good judgment ability to choose wisely in activities. The development of the child along such lines will make him a valuable critizen of his community.

The environment is very important in the education of the child, for it influences his language his standards of right and wrong, his appreciations his habits of living his interests. The school and the home should cooperate in improving the general environment. Activities of the modern school should carry over into and make use of the life of the community.

#### Health Education

One of the most important phases of education is train ing that will make for a sound fully developed body in good physical condition. Livery effort should be made to stimulate the interest of the children in preserving and increasing their health resources. Many activities connected with the persistent problems of food shelter and clothing give the children opportunity to prictice good health and to set up standards of sanitation and cleanly The child's health is affected not by what he knows but by what he does The effort of the school will be largely futile unless satisfactory cooperation with refer ence to the establishment of desirable habits attitudes and knowledge relating to health are provided by the home and the community The health program as promoted by the schools should carry over into the homes in order that parents may understand and cooperate with the schools in developing proper health habits

#### Leisure-Time 1ch ihres

The modern school acknowledges its re-possibility for directing the leisure time activities of the young people of its community. The school does not end its york at three o'clock each day nor does it end its program with the close of the school term. Education is a continuous process, it is the organization of all the experiences that mold the life of the community and of the individual. Hence the school must have a share in providing the right sort of experiences for the child in his free time after school hours and during vacation. It must see that these experiences are integrated with the experiences of the school. This is accomplished by helping the children

plan their summer vacation activities, by planning and conducting trips of educational value by stimulating an interest in collections that may be made during the vacation and so on. The vacation activities should be definitely checked up when school re-opens in the fall so that the various activities engaged in function in the life of the pupil and lead to interests that call for further activities and investigations

#### Appreciation Subjects

Appreciation of beauty in the field of art, music literature, and nature should be stimulated and developed in the boys and girls. No child's education is complete if this side of his nature is neglected. Training in these subjects leads to the development of ideals that make for a richer, fuller enjoyment of life. Provision for training along these lines encourages creative work and helps the gifted child to find himself so that he may take the special training needed to develop his special talent.

#### Music

Music is recognized as an important subject in our educational program and is given a definite place in the modern school because of its great influence as a socializing force. Music is no longer regarded as a luxury but it is offered to every child as a regular part of his school day. Children are given opportunities to hear good music by means of the victrola, the radio and musical programs offered in the schools from time to time. They are encouraged to make musical instruments which they use as they take part in the toy band or the school orchestra. Many times children will create their own melodies, if given the



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MUSIC IS SELF-EXPRESSION

proper stimulation and encouragement. Music in the modern school is recognized as one means of selfexpression

#### Art Education

The aim of art education is the development of the appreciation of the beautiful and the power to produce beautiful things. It is the purpose of art education in our schools to provide such training as will bring into the lives of boys and girls a knowledge of beauty and joy in expressing it. Such interpretation and expression of beauty develops gradually and normally through experiences which give the child an opportunity to make his activity more meaningful.

Art education in the modern school should be planned to meet the needs of all, rather than to develop the talents of a few. In general, through training in art education the child should be helped to develop good taste, the fundamental principles of design and color as a basis for judging the art quality of the objects which he selects, uses and produces for personal, home, industrial, and community life. Through such training and through contact with examples of fine art the child should grow in the ability to recognize and enjoy beauty wherever beauty may be found. All children should be given sufficient skill to enable them to use drawing and construction freely in expressing ideas and recording facts.

#### Literature

The child should be given a love for good literature — the best in prose and poetry should be given him, and he should be taught to appreciate the contribution of the author in creating these works as well as the beauty in them. He should be encouraged to express himself through the medium of written and spoken language If the child is trught to find pleasure in books, there lies before him a world of pleasure and happiness for leisure hours.

#### Character Training

In the various group activities of the school the children have many experiences where they face situations that call for the practice of those things that make for moral growth. Children face problems, daily, and after being shown how to look into the question from all sides, must decide things for themselves. Experiences of this and like nature are of tremendous moral value, a child who has been trained to look at all sides of a question before coming to a decision will not be willing to accept readily the decisions of others.

No separate course in character education need be given. In the modern school the development of character is recognized as the end of all school work. It is innate in the process. The public school is the instrument of the people to train the vouth for efficient citizenship, and opportunities must be provided, through the various activities of the school, for the pupil's growth in ability to lead, to appreciate the rights of others to be loyal and to participate in independent, creative thinking

Through group activities developed in the classroom in organized games and sports and in club organizations many splendid opportunities may be given for the development of these abilities. When a pupil agrees to perform a certain part of the work of developing the unit, or of solving a problem, he is responsible to the group for the successful accomplishment of the task. He is asked to given constructive criticism of the work of the group and to accept the criticism and suggestions of the group about his own contribution to the development of the activity. He is a working member of his group and through the activities carried on learns many lessons of "give and take" that will be valuable to him in later years

#### THE POWER TO DO THINGS

In the public schools to day we endeavor to give the child the *power* to do things, the ability to meet situations, to carry things through successfully, to find a way to live with his fellows, and opportunities to evercise civic control, rather than to give him merely a large body of unrelated facts which he may never need, as the schools of the formal type have always done



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MAKING COOKIES TO BE SOLD TO PARENTS TO RAISE MONEA FOR THE RED CROSS

#### AN ACTIVITY PROGRAM AT WORK

An important step in carrying on a program based on children's purposeful activities is the selection of activities rich in possibilities from the standpoint of the development of the child, activities that will help realize the objectives of the school and provide opportunities for giving to the child the body of content material we want him to get and an understanding of the fundamental principles basic to the solution of persistent life problems

In this way the whole life of the child in school may more nearly approach life situations. Real learning which will be made use of in solving any problems of lite takes place in situations approaching those under which the problems are likely to arise. The learner draws upon all fields of information and slill, he assembles facts about some difficulty and by seeing new relationshipsinds his solution. Such units become the core of the elementary school curriculum. They should not only be selected from real life situations but should always be kept near the present needs of the child.

These units should grow out of persistent life problems and should make for a growing understanding of the fun damental principles necessary to the solution of these problems. Such problems as the home, food, shelter, clothing, communication, transportation and govern ment, are basic to our civilization and the children need to have a growing understanding of the principles underlying these problems that will help them in their solution when new uses arise in these fields in the future. The subject-matter of the various grades should lead to an understanding of the principles underlying the facts being suited, of course, to the growth level of the groups of children.

#### TYPES OF ACTIVITIES

#### A First-Grade Train and Playhouse

A first-grade group enjoyed building a house with blocks found in their room at the beginning of school, and playing "keeping house" One day a discussion tool place about getting supper ready for fither, when he came home from work. The question naturally aro-e "what kind of work does fither do"? 'Several children in that group came from homes where father was either a railroad engineer or fireman, so it was only natural that father should be an engineer. The next day the son of an engineer brought an invitation to the group from his father to visit the rulroad vard and go over an engine A trip was planned for the boys in the group to go They climbed into the engineer's seat, were permitted to ring the bell and to blow the whistle. They vatched the fireman at work. The result was a natural one. When they returned to school the next day they wanted to make a train of their own, and immediately set to vork to get the necessary materials an engine, coal car and one other car were built. The train and the playhouse grew together and furnished many opportunities for solving real problems in building and construction work as well as possibilities for developing the vorl of the grade around this activity



THE TRAIN THE FIRST GRADE BUILT Putting on the finishing touches—ready for a trip

Trips were planned and tickets bought from the ticket agent. This called for some experience with money. Another opportunity to have first hand experience in making change came when the group went with the teacher to the city market to purchase vegetables to cook in the school cafeteria, with the help of the cafeteria manager, for father's dinner when he came home from his "run". They served the dinner to the members of their own group, in their classroom

Many lessons in healthful living grew out of this activity Reading and language lessons developed with the story of each day's work, as

We did not get much painting done this morning William Craven did not put the paint bucket in the right place

It turned over

He and William Powell cleaned it up

Two boys made a bench for the passenger coach

They did not measure right, so the legs were not even They must make the bench over

In writing sentences about their work they learned to begin sentences with a capital, to end statements with a period, to use quotation marks, to form the possessive of such words as Tather's, Baby Sister's

Many new words were added to their vocabulary, daily Some of these, through constant repetition, they learned to spell, others they learned to know and to use correctly in connection with this unit about trains

They had need for arithmetic facts, also By the use of the yardstick, in measuring, they learned the terms feet and inches. In buying paint they came to know the meaning of such terms as half gallon, quart, and pint. In measuring beans and potatoes they used a quart cup. They bought at the market 7 quarts of beans at 25 cents a quart. They also gained some idea of proportion.

#### City Country Home Unit

In another first grade several members of the group came from the country. One boy, from a dairy farm, shared some of his experiences on the farm with the group at the conference period one morning. This created an interest among the city children in the country home. The mother of this small boy invited the grade to visit the dairy and sent a truck for them. The trip stimulated an interest in the things the country people furnish to city people.

This group planned and built a city and a country home in their classroom, and made the furnishings for each. These houses were large enough for the children to play in. When they had completed the work, they planned a party for their mothers at which time they served breakfast in the city home. Milk and eggs were ordered from the country home by a play telephone which the children had made and "installed". The truck delivered them to the city home.

This activity furnished the center of interest for the work of the group for the entire year and afforded rich possibilities for language, number work, the use of simple me isurements, and reading lessons growing out of the story of the work. Appreciation of what the city people get from the country grew with the development of the activity. Many lessons in health were possible, in additional activity.

tion to some facts in elementary science that were discovered when they were painting the house making the telephone, and putting lights into the homes

Out of these ectivities the group learned orderly habits in putting away tools, materials in cleaning up and so on Leadership was developed. One child assumed the responsibility for making the cowe etcher of the train and chose others to help. The school should recognize the responsibility of the superior child to society and give him every opportunity to develop to the fullest of his capacities with his group. He should be given opportunities to develop the leadership for which he is responsible to the group

The members of the group learned cooperation in working in committees and in helping other members of the group when a difficult problem had to be solved. Other character traits stressed were obedience, promptines in obeying the signal for work to stop, patience in writing one's turn to paint, to use the hammer or the saw, judgment in choosing materials for the benches for the coach, in deciding how well the thing was made and whether it would serve the purpose for which intended

#### Cafeteria and Grocery Store

A group of second grade children planned a playhouse on the school yard. Ruin prevented currying out the plan immediately. They decided to build a table and some



OUR SCHOOLROOM CAFFTFRIA

chars for the house while they waited for clear weather It was a rainy autumn and after the completion of a table and some chairs different members of the group would bring their lunch from the school cafeteria to eat at the tables they had made for themselves. This suggested to them a classroom cafetena. The plan was carried out and through the cafeteria the group learned many lessons in how to choose foods in sanitary measures in keeping foods, and in cooking Habits of eating were emphasized The children developed the habit of washing their handbefore eating eating slowly conversing pleasantly while eating, courtesy at the table resting after cating. Is these children came from homes where the mother v orl ed in the mill all day they needed help in forming such habits and in learning what foods make strong, healthy boys and girls

One day a small boy asked where the oranges they were eating were obtained. They knew the truck from the

wholesale house brought them to the local grocery store, but "where does the wholesale grocer get them". Similar questions were immediately raised about other articles of food. This interest led the group into building a grocery store of the boyes that had made the cafeteria. Through this they came to have a feeling for the contribution made by many agencies to our daily life—the farmer the milkman, the grocer and others

Transportation leads to study of Children of Other Lands

Trucks were drawn and discussed as a means of transportation. A truck was built by the group. This means of transportation however, would not serve to bring oranges from California, so the train was studied as a



THE SECOND CRADE'S GROCERY STORE

factor in bringing foods from other sections. The school term closed before a train could be built, but the next autumn the children came back to school ready to build the train. This was done with materials collected from backwards, the mill, and the neighborhood grocery across the street.

The train led to an interest in travel which was further stimulated by the books the teacher put on the reading table. China was the first country studied. The teacher was given three months' leave of absence for study in Italy that winter. The group followed her itinerary with interest sending her letters about their work. In return she wrote them of the places she visited and of the interesting things she saw.

Through these journeys to different countries the children learned much geography and history. They learned how the people hived and had a growing understanding of the fundamental concept that climate determines the character of man's food, clothing and dwelling. In studying Holland, the children learned that the Dutch are a clean healthy, efficient race thus adding to their understanding of the fundamental principle that efficient living is dependent upon a knowledge of the principles of health and sanitation. A respect for the people in the countries studied and an understanding of their problems was at all times encouraged.

Much of the reading of the grade centered about the activity. New words were added to their vocabulary. Many of these they learned to spell and many others they learned the meaning for and how to use them in connection with their travel study.

A Fifth-Grade Bank that Went to High School

A fifth grade realized a need for a safe place to keep their things, as the school building had been entered during the week-end and some of their materials were missing One child suggested that his father kept important papers in the safe deposit box at the bank. The group immediately decided that what they needed was a The teacher said she had one that was not in use and the group might have it if they wished. When she told them it had a combination, they were ready to bring it to school at once. At first they kept only their prized possessions in it - knives, memory books, jewelry The son of a banker told of the different things his father had told them people kept in safe deposit boxes at the bank One voungster asked if they might not have a bank The teacher said she would agree if there were things they really wished to know about banking. The bank was organized, thus recognizing the principle that organization is essential for any effective work. They found out what officers a bank needs and elected from their number a president a chairman of the board of directors, a secretary a cashier, an attorney, an auditor, a janitor, and a board of directors composed of the remaining members of the class In choosing these officials the group considered those qualities which would make a good president. cashier, secretary or other official By this means many qualities that go to make a good citizen were considered by the group

The bank furniture was made by the members of the class. They also made their own forms—checks, de posit slips pass books. The president of the bank wrote the superintendent of schools and asked for a typewriter to be used in the work of the bank. The machine was furnished from the superintendent's office and every child in the grade learned to use it

In choosing a name for the bank it was voted to name it for a local man who had been interested in their work. In their own words they "named the bank for Col Fred A Olds because he is friendly and because the Colonel stands for good citizenship and good citizenship is the aim of all business"

The bank soon grew into a school activity, accepting deposits from all grades, paying three per cent on savings, and lending money at sav per cent to promote worthwhile school activities. On each banking day the money deposited was taken to a downtown bank and deposited there by the president and the cashier. If could be checked out only over the signature of the president, after he had been duly authorized by the directors

The bank continued its operations during vacation and through the last year of the elementary school. When the group went to the high school they wrote the superintendent asking his permission to take their bank with them. They invited the principal of the high school to visit them. When he came they explained the work of the bank and asked him if they might take it with them. He agreed and they set to work on plans to present the bank to the student body at the high school assembly period in order to gain their interest and cooperation. They were successful in launching the bank in the high school and after two years it is still functioning as a school activity.

Units of work having to do with the things we live and

work by furnish gripping problems for the boys and girls of the middle grades. One of the functions of these grades is to deal with the raw materials of the nation. How the raw materials are made available for man's use is always a challenging problem.

#### Characteristics of a Good Unit of Work

Units of work should stimulate a good balance and variety of activities. There should be opportunities for construction and work with the hands. Excursions and field trips will find a place. A need for reading and investigation should be developed and materials suited to the interest and ability of the group should be available for their use. In addition to the regular textbooks children should have access to many types of informational materials—reference books, books of travel, books having to do with life in other countries, books dealing with different industries, and similar publications.

Every unit should make provision for individual differences and for individual planning within the social group Present needs of the group should be satisfied in the activity and at the same time the larger needs of life, as health social, and civic relationships, and leisure time activities should receive attention

Situations should be offered for the members of the group to have opportunities to select or choose, to plan, to execute, and to evaluate the work as carried on through the unit of work. An investigating attitude should always be stimulated which will lead to other interests and activities that provide for the continued growth of the individual child

#### Secondary Education

There is no real break between the elementary school and the high school. The program should be planned to give opportunities for continuous growth. The problems or units of work selected must represent an orderly sequence in content and thought development from first grade through the secondary school. The work of the elementary school gives the child a broad, rich background for whatever special subject he may wish to pursue in the high school and in college, and helps him determine his special abilities.

#### Suggested Units

The units of work in high school will be chosen from the fields of (1) health, (2) the physical environment, (3) social, political, economic, and moral life, (4) the fine arts, and (5) the vocations. In the jumor high school field units that have to do with such persistent problems as industries, government, transportation, communication the keeping of records, and health will be chosen. In the list years of high school such problems as How Science has Affected our Living and Thinking, How Machines have Modified our Civilization, World Cultures, American Democracy, The Fine Arts — poetry, sculpture, painting, architecture, literature, the drama — will be used as rich units of work.

Many vital problems can be drawn from the five fields named through which the children will have a growing appreciation for the work and contribution of the people who have lived before us and a feeling of responsibility in making a worthwhile contribution to our present civilization. In such units of work will be found a large number of fundamental principles or concepts and meaningwhich the pupil must understand if he is ever able to master new issues in these fields when they are in the future

A unit of work may satisfy all the criteria set up for judging it with respect to interest, adaptability grade level and needs felt by the group and others but unless the unit contributes directly to an ever wider and more complete understanding of the principles inherent in the subject, a clearer knowledge of the essential meanings involved and a growing understanding of the tive field-suggested, it does not belong in the curriculum

#### SERVICE COURSES

In addition to the large units or major topics in the high school, provision should be made for service courses to give the drill and practice work needed which is not taken care of through the unit of work. I pupil in a social science major, for example, will be given service courses in science, mathematics. English fundamental modern language, or in any other subject not provided for in the unit study.

#### Creatine II ork

In both elementary and high school we want to make provision for children to have contact with and to develop an appreciation for the beautiful in art, music literature and nature. The education of a child is not complete unless this side of his nature is given an opportunity to grow. Care should be taken that a stimulating environment is provided and that children be given rich experiences in our schools. One of the real problems every school faces is how to provide an environment which will foster the creative development of every child.

This may be done through the reading table the bulk tin board, the science, art or music center in the room and by trips into the community to acquaint the child with his environment. Proper media for expression should be provided—colors clay, pen and pencil-paper, construction materials. When children have had experiences that are meaningful to them, they are ready for self expression and will find a way if given sufficient encouragement and freedom.

Some bits of verse selected at random, from material-developed in actual classroom situations are given as suggestive of the things that may be secured in working with children when they have had meaningful experiences and after they have been given many opportunities to appreciate poetry to see in the poem the effort of the writer to share his experiences and thoughts with other-

A first grade child brought a honey bee for the mu-cum and the following re-ulted

> We hear the holes bee buzz buzz buzz On the soft summer air In the night he sleeps and dreams and dream Of sweet flowers every where

Bailey's white rabbit spent a week in school When he curled up on someone's coat for a nap he looked so cunning that Margery was moved to say the following

Our little rabbit steps oh so softly!
We cannot hear him go
He slips about, in and out,
Like a fairs on tiptoe.

This description of the long-leaf pine came from a first grade who had planted one in their park

Long leaf pine tree
You are beautiful to see
Dancing in the grass
As the little children pas

Sometimes you shiver
Sometimes you quiver,
Long leaf pine tree
You are beautiful to see!

A second grade working in their garden said

Tulip tulip please come up'
Catch the dewdrops in your cup!
It would be very much fun to see you
Nodding to the sun

A tourth-grade girl comments on the butterfly which came from the cocoon in the science corner

Dear little butterfiv with wings of orange and vellow,
Dancing on the howers vou gav little fellow!
Dear little butterfiv fiving so gav
I wild I could catch you so you couldn't fiv away!

A fifth grade in a study of trees see more than the average person as they watch them from their schoolroom window

The trees just make the queerest shapes as they droop and sway and drape At night their limbs make runny faces. Their leaves make patterns of pretty laces. And in them birds make little nests. Where their small ones lie at rest But in winter their limbs are bare. And the snow is lying there.

Many songs have been written by children as a part of their work. They make their own instruments and write their own melodies. One sixth grade wrote the music for an operetta which grew out of their unit on forestry and the early history of the State. This group designed and painted with fresco paints the scenery and presented the operetta for their parents and friends.

Creative expression of the children is shown in tapestries and panels depicting transportation ships bird life in triezes for classroom walls in stage scenery, in original plays and pageants in folk dancing A high-school group in Fine Arts started an art gallers for the school which they continued to sponsor as long as they were in high school and after they had gone into other units of study. They brought into the school and into this particular activity a number of people from the community especially interested in art for the help and suggestions they could give. One of these men planned a summer in Europe and representatives of the class went to him asking him to bring back copies of prints of some of their favorite paintings which they wished to add to their collection.

No finer experience can come to boxs and girls than the contact with some citizen who has much to give them because of the richness of his living. From such contacts comes the realization of the value of such citizens to the lite of the community. The pupils begin to have a feeling for their duty to their community and an appreciation of the fact that every individual should contribute in some way to the social order two principles fundamental to the progress of the world.

#### The Modern vs the Traditional School

The modern school differs from the traditional school in its attitude toward the child. Instead of forcing things on him it trusts him. Instead of teaching ethics the modern school appeals daily to the best that is in the child and provides experiences and situations that give him an opportunity to practice those traits that make for good citizenship.

The modern school liberates instead of represses. It gives the child a share in his own education. Such schools will develop individuals who know how to plan and work together, who know how to accept and to give criticism, who show initiative who are always active never passive, who have a zest for life, a desire to find things out for themselves, who like to have hard problems to solve. Such schools will make for citizens of the future who will be able to meet the demands of the city, the state, the nation and the world.

Children are our ambassadors to the future. The city and the state should insure the necessary means for the development of the voung people along physical intellectual and moral lines. Education is a continuous process, a dynamic force going steadily onward toward a goal changing as the need arises to meet the needs of a changing civilization. The educational program of any community to be most effective must provide opportunities for the education of its people along lines that make for growth and development in those things that contribute to a full rich, complete life

### FREEDOM IN SCHOOL AND SOCIETY

#### BY ERNEST HORN

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THE ultimate ends for which schools are sought must be in harmony with the ends which are sought by society at large This brings us, at once, to the crux of the problem of freedom in the school, which cannot be solved apart from the consideration of the problem of freedom in life outside the school But even the social philosophers have not been able to agree either as to the amount or the kinds of freedom which can be allowed to the individual without detracting unduly from the rights of others Although the attainment of freedom on the one hand and of orderliness on the other has challenged the minds of thoughtful people since the world began, the harmonizing of these two values has not yet been Many critical observers point out that the solutions which are proffered at present are as badly muddled as those of any previous period Opinions are diverse rather than in agreement While there are those who think that liberty is being seriously diminished there are others who believe that we have far too much of it

Although there is no acceptance of a general formula for establishing the proper place of the individual in society, there is substantial agreement that the individual should be encouraged and protected in the exercise of certain types of freedom. In theory, for example, freedom of thought and freedom of religious beliefs are accepted as desirable. In other fields of conduct, however, there is no such unanimity as to amount or kinds of freedom which the individual should exercise. Witness, for example, the heated debates on divorce, strikes, prohibition, war, and the practice of laissez faire in business

It is not surprising that the problem of freedom should be subject to controversy in our day. We see about us a number of rapid and spectacular changes which necessitate new adjustments in the individual's relationships to his fellows. These new opportunities demand new types of freedom. At the same time the maintenance of orderliness necessitates new and more inflexible restrictions upon the individual. When changes are revolutionary, there is a definite tendency for freedom to be curtailed. Examples come easily to mind. For instance, the coming of the automobile has undoubtedly added to the rigidity of the rules of the road and to the weight of the penalty for non conformity. Soviet Russia rigidly enforces those rules which are deemed necessary to accustom the people to the new social order.

For how much and for what kinds of freedom should the school prepare? The failure of society to answer this question places the school in a difficult position. It is no easy matter to teach children to read, write, and calculate, even though the desirability of such skills is universally recognized. How much more difficult is the tisk of training for the evercise of freedom without knowing how much or what kind is good. The goals are elusive indeed. It is

therefore advisable to attempt to formulate from the social heritage the general propositions upon which there seems to be the largest agreement. These propositions will be somewhat in the nature of principles and if soundly conceived should not only clarify the issues but also constitute a step in the ultimate solution of the problems. The same principles which underlie the proper exercise of freedom in life outside the school will determine in a large degree, the proper exercise of freedom in the school itself.

The first proposition is that there must be a certain amount of orderliness in society. Orderliness is conducive to freedom rather than destructive of it. John Dewey has pointed out that even the worst laws are better than none and very likely the most rigid orderliness is to be preferred to none at all. For example, the motorist who understands and observes traffic rules contributes more to the free use of the roads than does the one who violates them. If these rules were not generally observed, no one could drive in safety. The individual is liberated not by the breaking down of law and order, but by planning laws and orderliness which are more rational and practicable

The second proposition deals with the right and ability of the individual to choose the goals for which he strives as well as the means to these goals. Treedom of choice implies that the individual understands and appreciates the values from among which he is to choose. Unless all the important alternatives are before him, the choice which the individual makes is obviously restricted. It follows logically that freedom of choice demands a breadth and vigorous scholarship far beyond that which is utilized in that narrow type of doctrination which is so destructive to liberal thinking. Later, the implications of this conclusion will be pointed out.

The third proposition is that society rightly expects the individual to make his choices in view of the consequences. The effect of the choices which the individual makes may fall upon himself or upon society. In either case reasonable foresight as to the probable outcomes is demanded if choices are to be free in any socially acceptable sense. No less are demanded willingness and competency to accept responsibility for the outcomes of one's actions. When the happiness or the freedom of others is affected the individual may not be competent to fulfill such a responsibility, however willing he may be

It is a difficult matter to foresee the consequences of one's actions. No one can do it all of the time. There fore both the individual and society must be protected from the consequences of his choices. It is for this reason that we regulate banks license physicians, and establish rules of the road. Even when the individual is capable of foreseeing the probable outcomes of a given choice he may either not actually do so in the stless of action or disregard the consequences. The motorist may again be

used as an illustration Reckless driving may be due to a lack of foresight as to the possible results of such driving, to torgetfulness in the excitement of the moment to foolhardiness, or to disregard for the safety of others. No such exercise of freedom can be justified. Hence, we have more laws government and even police. Both self-control and social control are needed.

The fourth proposition in a sense the summary of the first three is that freedom can be achieved only through education. No one is free to do what he has not learned to do. It is a fact that the nations that are most free are also the most highly educated. There are abundant data to prove this dependency of freedom on education, but, it such data were not available this dependency could be established as a logical deduction from the three preceding propositions. Schools must educate the individual to set up the goals for which he lives as well as to attain those attitudes. Knowledges and skills which are essential to reaching these goals.

These four propositions do not constitute a solution of the problem of freedom but they point out important aspects of it Serious dilemmas remain. For example, attention has been called to the fact that true and socially desirable freedom is possible only to the degree that the individual can see the consequences of his actions and is willing and competent to assume full responsibility for On the other hand, attention has been called to the necessity of protecting the individual and those about him from choices whose consequences he cannot foresee. It is not easy to know when to place the emphasis on freedom of choice and when to place it upon the rational conformity to laws customs and well-established institu-The former carried to the extreme breeds anarchy, the latter carned to the extreme leads to slavery seems to be no intelligent formula for determining the relationship of the individual to his fellows. In any age and in any situation the practical patterns of conduct are compromises

How then shall we educate pupils to take their place in a world where the exercise of freedom is a problem? Here again there is a diversity of opinion. Nevertheless, there are important trends in modern educational practices which are viewed with approval by the great majority of leaders in educational thought. A brief description of these trends follows.

- I To an increasing degree, modern curricula are based on a painstaking analysis of social needs. This is as it should be since the ability to choose intelligently which is basic to freedom, can be trained best through a course of study which mirrors the most important social values. The selection and organization of the course of study are therefore basic to other means of training for freedom. The more competently a course of study is made, the better instrument it will be for this purpose
- 2 In the last twenty years children have been encouraged more and more to take an active part in setting up and evaluating the purposes which are to guide them in

their work. Increasing care is taken to lead children to see why they need to study a given le son as well as to help them plan with the teacher the best way of mastering it. Children are led to recognize that there are certain essential skills and knowledges which must be learned if the individual is to be unhampered in taking his place in the world, that knowledge of and conformity to essential natural and social law make freedom possible rather than hinder it.

- 3 There is a growing conviction that freedom comes from self-discipline rather than from external discipline. Therefore children are assuming large responsibilities in the management of the affairs of modern schools. The success of student councils, of pupil-planned assemblies and of pupil participation in the planning of excursions is impressive. For example, one has only to see the free intelligent, and efficient orderliness of the school excursion which the pupils have helped to plan to recognize its superiority over the passive, military orderliness of excursions which are planned solely by the teacher
- 4 The best modern schools encourage children to question the opinions of others as well as to express and question opinions of their own. Initiative and the frank interchange of ideas are stimulated. Such practices are perhaps best facilitated by that form of contact between pupil and teacher which goes under the name of "the socialized recitation."
- 5 Routine teaching, routine programs, and lock-step progress are being broken up—Individual instruction reinforced by diagnostic and remedial teaching, is becoming more widespread—Greater liberty is given to pupils to focus upon their own peculiar needs and to progress at their own rate—There is growing recognition that rigid programs which are broken up into short periods and which stop and begin on the minute not only prevent the efficient learning of the subject matter assigned to such periods but also lead to formal instruction and arbitrary teacher direction
- 6 There is a growing belief that training for freedom thrives best in an informal but businesslike atmosphere. The basis for the creation of such an atmosphere is outlined in the five preceding paragraphs. Such activities as construction work, assemblies and excursions are among the best offsets to rigid formalism. Movable furniture is helpful but not essential. Most activities require orderliness and system but the orderliness is determined by the natural requirements of the activity rather than by the artificial and unvielding dictates of the teacher.

The practices do not imply pedagogy of the soft variety. They make rigorous demands upon the pupils but these demands grow reasonably out of the natural requirements of the problems to be solved rather than out of fiats of the school. Responsibility and clear thinking are stressed as are also initiative and creative enterprise. Pupils are led to seek training, scholarship, and self-discipline, because they realize that through these attainments lies the road to freedom.

## A MODERN PLAN FOR TEACHING CHILDREN

By ROLLO G REYNOLDS

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MODERN education faces a tremendous task Probably at no time in the history of man has that institution known as the school faced so complex a task as that of determining what and how to teach children

The solution requires more than a course of study, more than a method of teaching, it requires a Plan for Teaching Children that takes into account all the elements which go to make up the individual child, a comprehension of the purpose for which he is being educated, and the materials and methods necessary to carry out the purpose

Such a Plan for Teaching should contain, it seems to me, the following parts —

ist The determination of the knowledges, attitudes, skills, and habits which should be the common possession of all children or of all children of a particular group. This is a Core of Content which is essential. Such a Core of Content does not imply the learning of it by drill or in any particular way. But it does imply that there are definite goals and standards by which we should be able to measure the outcomes of the various educations which the child receives in school.

and The providing and arranging of materials, experiences, knowledges, skills, etc., in such a way that the interest of the child will be awakened, the reason for the learning will be apparent and the relationship between facts, attitudes, and the life about the child be recognized One method or form of this proper arrangement is known as a Unit of Work An example of it might be "How the City gets its Food "Such a unit will awaken the interest of the child, the reason for learning in such a unit is apparent, and if properly constructed and skillfully carried out the child will not only come into possession of essential knowledge, gain desired skills, develop proper attitudes, and build good habits but in addition the expenence will show him the relationship of geography, history, arithmetic, citizenship, science, the arts, etc., to each other in this interest so important, "How the City gets its Food "

In the third place it is necessary, because of limitations of space and time, to provide means by which the child may come into contact with those things which enter into his education In the modern school much of this contact comes through direct experiencing "Learning to do by doing," is sound educational philosophy But the elements which enter into the education of a modern child are so varied and so many that the child cannot experience directly all of them He must experience many of them For this reason all manner of materials for vicariously children themselves must be part of any Plan of Teach-Maps and pictures, films and musical records, children's materials of all kind do exist. In the earlier days mankind received this vicarious experiencing through word of mouth, the "story teller" of the olden day was the medium Since the invention of printing,

most of the vicarious experiencing of man comes to him through the medium of books — the printed page. It is only comparatively recently however, that the child has been able by himself to have this vicarious experiencing furnished by books. A Modern Plan for Teaching Children must have more and more of these children's materials, more pictures, more films, and especially more books, suited to children's interests and leveled down to children's abilities in vocabulary and comprehension. Any enterprise which will make available such materials is making a great contribution to the education of children.

In the fourth place a Plan for Teaching should contain directions as to how the plan can be carried out wisely and efficiently. A series of minurals handbooks profesional books on all sorts of subjects concerning the teaching of children should be a part of the plan. "How to Construct a Unit of Work," "Methods of Teaching Be ginning Reading," "Remedial work in Arithmetic," are examples of needed books in this part of the plan.

So much for a "Plan for Teaching Children" A glimpse for a moment at the modern life of which these children are a part may give to us some conception of the task which a Modern Plan for Teaching must undertake May I present, merely as an example a thesis?

The Modern School must recognize the implications of its function to the society which its children are to compromise. It must accept its share of the responsibility of fitting children for this society and also its responsibility for directing, changing, and bettering this society.

What are the characteristics and necessities of modern society which should condition a Modern Plan for Teaching Children? How can we formulate not only the philosophy but also the process of education that the implications of these characteristics of society will be reconized and the necessities of society provided for?

A society is determined by the way in which its members think. Scientific thinking is necessary in a good society. We learn to think scientifically. We begin to learn to think scientifically when we begin to learn to think

A society is determined by the extent to which it gives each member of the group opportunity to develop most fully his powers that he may contribute most fully to his society

The children who are in school to day will compose the American society of twenty five verrs hence. This society will probably be more of an industrial and machine-dominated society than that of to day

Dr Thomas Briggs has said "Education is teaching boys and girls to do better the desirable things they are likely to do anyhow" Dean William I. Russell points out some of the changes in our civilization that are likely to take place. Stuart Chase paints a vivid picture of the characteristics and possibilities of this machine age in his

"Men and Machines" The current press and magazines are reporting and recording these lightning-like changes day by day Dr Rugg in his book "Culture and Education in America," sketches for us the kaleidoscopic march of events in our own American civilization and points to some prospective futures. The economists predict startling changes in our economic life. The scientists foretell new miracles to come. The statesmen look to new methods of group control. The sociologists point out new ways of human living. And the Internationalists are looking forward to new ideals of human relationship among nations.

It is evident, I think, that the great characteristic of the age in which we live is change — rapid change — Children who go out into the world will surely be called on often to do two things — change things, and adapt themselves to changed things — If they are to change things wisely, and adapt themselves to changed things understandingly, they must first be able to understand and interpret things as they now are, they must know how things as they are developed from things as they are they must have the imagination to vision things as they will be "A big task" you say — True, but to no lesser one can modern schools apply their efforts

We must therefore put into our subject matter, materials of instruction, and methods of teaching, those things which will best make children familiar with this machine age, we must preserve for them those things from the past which have contributed to society's evolution,

we must develop within these children methods of thinking, attitudes, knowledges, and skills which will make it possible that this mighty machine, characteristic of our age, may be dominated by and bent to the future welfare of mankind

Our plan, however, must not be too materialistic, it must not take into account only those phases of the past and the present which have to do with man's physical and material welfare. Perhaps more than ever before the things of the spirit need to be emphasized.

The utilitarian machine must not be allowed to push aside those things which are the esthetic heritage of mankind. Our plan must preserve the things of beauty in art, literature, and music which have come from the past. It must in some way educate so that things of beauty will be created in the future. The machine has lessened man's labor. If we are wise enough we may be able to send forth a generation whose lessure hours will be more productive than ever of these things of the spirit.

I am glad to have been asked in the company of such a distinguished group of educators to present these ideas on education. The New Wonder World presents from the pens of able writers not only an interpretation of our present civilization, but also an interpretation of the significant elements of the past from which the present comes. Furthermore in its pages is found a glimpse of those things of resthetic beauty which make life for man worth living. It is a fine contribution to the education of a modern child

# SOCIAL STUDIES AND READING IN THE RE-CONSTRUCTED ELEMENTARY SCHOOL

BY ELMA A NEAL

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THE purpose of the elementary school is to provide all children with the type of education necessary for integrating the individual in society. The development of tolerant understanding, adaptation to one's environment, and the capacity for creative self expression, all contribute to the central purpose of the school, — social living in a rapidly changing society.

Since we educate through experience, the elementary school should be concerned largely with providing those experiences through which the child may express himself creatively, grow in understanding of himself and the world about him, gain control over the necessary tools of learning, and grow in ability to make the social adjustments necessary in his relationships with others. The modern school is essentially a workshop. The teacher and the children live together. Since the school is active, a selected environment rich in materials is provided by means of which children build a background of experience

The new concepts emphasize active response, changes in

conduct and the building of new ways of behavior into the learner's experience. The essential elements in subject matter are probably now best conceived as ways of responding or reacting. Meaning grows only through reaction. Advantageous learning affects favorably the individual's behavior. Learning is satisfactory only when the new way of behavior has been so built into the learner's nervous system, that it may reasonably be expected to function efficiently when the proper time comes, thus permanently modifying the individual's mode of reacting upon his environment.

#### SOCIAL STUDIES CURRICULUM

The chief theme of the social studies is living together in a rapidly changing society. The basis of social living tolerant understanding, adaptation to one's environment and creative self-expression all contribute to this one great end social efficiency.

<sup>&</sup>lt;sup>1</sup> National Society for the Study of Education — Twenty sixth Yearbook Part II Foundations of Curriculum Making Public School Publishing Company Bloomington Ill

"We are coming to see that the one and only purpose of the social studies is to train our young people in practical good citizenship, in how to cooperate with one's fellows in how to lead the group life"?

The term "social studies' is applied to the range of activities and materials in the study of geography, his tory, and civics including health, safety and character education which will enable the child to comprehend more fully the development of modern life and his respon sibility as a contributing member of society whether in the home, the school, the community or the outside world. The child must be made to realize the social influences that control his life and the lives of those about him and the consequent need for social cooperation. In addition, if he is to function effectively as a citizen he must know the history of the advinces the human race has made and he must understand the geographic factors influencing the material conditions under which he lives

In the study of the social studies there are certain generalizations that should be developed. The child of the elementary grades will not be able to comprehend them completely, but by hearing them continually referred to, he will come to some conception of the funda mental principles that have operated through the ages to bring man to his present development. In the lower grades he may become familiar with situations and terms and gradually, in the upper grades, begin to generalize and apply those principles in thinking and acting in social situations. Through the social situations set up in the classroom he soon learns that the interests of the individual are considered only in so far as they are in harmony with the good of the whole, that through a study of community life an understanding of the workers of the community and the interdependence of man is developed

The main purposes of the school development of tolerant understanding and self-cultivation through self-expression, are perhaps best developed through the social studies. Tolerant understanding can best be developed by building sane tolerant attitudes basic to having together a rich and varied background of meanings and concepts and practice in thinking reasoning and critical judgment.

Not only is it necessary for children to grow in intellectual understanding of the world about them, they must also mature in appreciation of it and in their ability to make it over for themselves creatively. The social studies offer rich opportunities for the drawing out of the creative talent within every child so that creative self expression contributes to a broader and more tolerant understanding of society.

The outcomes of activities engaged in by the children include many definite knowledges, habits and skills and many concomitant learnings appreciations attitudes and ideals. Outcomes desired from instruction in the social studies then should result in an understanding of the world and its peoples an appreciation of the cultures of all countries, including our own, and a continuous stream of creative activities essential to self-realization within

the group and to growth both in understanding and appreciation of modern life. Observation of children in their various activities gives opportunity for discovering the presence or lack of developing social habits and attitudes and those skills needed in carrying on the work.

The new type examination techniques have been found effective in testing information. By observing children reactions in social situations, the ultimate goal of social studies can be accomplished in part, as evidenced by the growing abilities of boys and girls to live together as contributing members of the school community.

#### A MODERN READING PROGRAM

The building of a generation of informed and thinking citizens rests upon the efficient development of the ability to read. Hence the school as the only organized educative agency confronts the important task of building a sound program in reading.

Reading is essentially a process of responding with meanings to the printed page. The psychology of reading then, is at the basis of the psychology of meaning Meanings arise out of the experience of the individual A background of experience is built through an accumulation of meanings which arise out of the active response of the individual to the stimuli of his environment. Attitude or mental set is important in determining the character of meanings. Meaningful response to the printed page is based on earlier experiences. The new school program provides active many sided experiences as the basis of reading. Since learning is not mere reciting—the giving back to the teacher words that have been memorized—the school program must provide for a variety of activities which draw materials from all phases of life.

Children will re construct their homes or their community with blocks or other materials. They will go on excursions or trips making first hand study of storesmarkets, parks and museums. They will read talk write, model draw paint sing. Thus through a great range of activities meanings will grow. Activities must begin at the level of the child and lead him as far is possible toward a broader understanding of himself and the world about him. Activities should be chosen in the primary grades which will make use of the interests experiences and meanings common to children their oral language habits which the children already possess and their home, school, and community environment.

"Many fairly intelligent children do not read enough books to insure even moderate facility in the reading process. In the acquirement of such facility, no amount of formal instruction can possibly take the place of extensive practice."

Children can read many books when their introduction to reading has been happy interesting and intelligent. Therefore before children are plunged into book reading we believe that time may profitably be spent studying the children themselves providing ample opportunities for the stimulation of interest, arousing on their part a

J Montgomery Gambrill Experimental Curriculum Making in the Social Studie. Hi toric Outlook. December Jinu in 19-3-19

<sup>3</sup> Harold Rugg and I out a Krueger The Social Studies in the Flementary School - A Tentative Course of Study

<sup>4</sup> Jerman and Lima Children's Reading Appleton

keen desire to read, and cultivating a right attitude toward books. In other words it seems that children are best ready to approach reading when they have a rich significant background of commonly shared experiences, for the larger the number of interesting experiences which they encounter the broader will be their background for the interpretation of what they read

The upper elementary grades have been designated as a period of wide reading to extend and enrich experiences and to cultivate important reading attitudes habits, and skills. Children have in the past been too restricted in the quantity and variety of reading they might do in these grades. They have been taught by methods which did not encourage habits of rapid extensive reading.

The child to-day is encouraged to follow his interests in science, biography, geography history, and literature One of the most promising developments in the whole reading program is the new interest in books of science biography, and travel written in the language and style children can understand and enjoy

#### USE OF THE LIBRARY

All children love beautiful books. It is important that they form the habit of home and library reading as soon as they are able to read. The parent and the teacher should direct the child in this work. Before they are able to read they must get their appreciation of literature through the presentation of interesting stories and poems.

There are many nationalities represented in America to-day. It is the opportunity of the schools to teach the English language to the non-English speaking boys and girls who attend school. It is essential that these children enter into our great avenues of thought through literature. Stories of home and social life or action stories are adapted to this purpose. They must have also their share of fairy and folklore.

The progressive school of to-day considers the library indispensable to the education of children. Its program has developed with a view to meeting the needs of all children in the school. With the increase of leisure resulting from the use of machinery and mass production the school has the added responsibility of teaching the use of books and libraries and of developing wholesome reading tastes closely related to the major objectives of education and of life

A definite plan can be developed in any school system for meeting the child's interest in reading and his need for books. In developing this plan suitable books must be selected and funds appropriated for the purchase of Other sources available are loans from public libraries and gifts from Parent-Teacher Associations and from children Instead of the usual school library, room libraries may be organized by providing a bookshelf or reading table in each room so that books may be easy of The program should provide for free reading periods at which time the child may read the book of his This procedure stimulates home and library The choice of books for a room library require much thought and study Selections may be based on American Library Association lists recommendations of teachers and children and upon other approved lists compiled through actual studies of children's interests in reading. Care should be taken to provide each room with books wide enough in range and in difficulty to meet the interests and needs of children of varying abilities.

In the first two grades, beautifully illustrated books should be chosen to create in the child the desire to read about the things he sees in the pictures or that he has experienced. Story books simply and interestingly written, should be included for those who are beginning to read independently. In these grades the teacher reads and tells many stories to the class.

In the third grade the range is somewhat wider. Here the children may select fairy and folk tales nature stones and myths stones of children of other lands, or poetry. For the fourth, fifth, and sixth grades, books of romance adventure animal life, history and travel may be selected. About half of this material should be of the information type to be used as the basis for training in reference reading.

The habit of reading should be encouraged in many different whys. The teacher may tell or read part of an interesting book the children finishing it for themselves Reading clubs may be organized and simple book reports given. Individual record cards may be kept which include the name, the author, and some brief comment on each book read. Book lists may be posted in each classroom to aid children in their choice of books. Parents may be encouraged to buy more and better books.

In addition to books for children's reading, the accumulation of a small but representative professional library in each elementary school is desirable. An attempt should be made to select the best books in each of the major fields of subject matter in addition to books on the philosophy of education, administration supervision and general method. Educational reading done by teachers has little value unless it makes them more conscious of the problems of education and stimulates them to evaluate their own practices and to attempt some solutions of their problems.

School life, whether elementary or high school, is centering more and more around the library. Children read from many books. They can not use books effectively unless they can read intelligently, therefore reading and study can not be separated.

School reading only introduces children to books Home reading should be encouraged. The school and the library should be tied together. The publishers, too are realizing the necessity of making available books that boys and girls would read if given the opportunity, and they are accepting the responsibility of helping to raise the quality of children's reading.

A library is no longer a luxury, but one of the necessaries of life so the parent or the teacher has the opportunity of giving one gift to every child, the love of good books The New Wonder World, with its choice collection of recreatory and information material, including nature science history, and literature is particularly valuable in helping boys and girls to discover in the world of books the ones they are certain to enjoy in developing a taste for those that contain worthwhile information, and in bringing to them the realization that reading furnishes a certain delightful entertainment for lessure time

## THE ACTIVE CHILD IN THE MODERN SCHOOL

#### By JULIA LETHELD HAHN

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In these days or rapidly changing educational procedures there are many questions in the minds of both parents and teachers concerning the practices of the modern school. A discussion of some of these practices and of the reasons why they have found a place in public and private schools may well occupy us here.

Any program of work, to be effective, must be based upon sound educational principles and must be developed as consistently as possible in the light of these principles Perhaps we should ask the parents of the children what kind of children they wish us to develop in our schools and then see how the school environment contributes to this development Parents questioned in this fashion would undoubtedly say that they want their children to be active participants in the affairs of their world instead of passive onlookers who sit still and "let George do it" They would no doubt want their children to do as much leading as possible and to follow intelligently when the occasion demands In order to meet this need we must set the stage, as it were, so that these children practice participation The modern school, therefore, is primarily neither a sitting school nor a listening school but an active, challenging school where children move about freely and with growing care, where they practice talking well instead of keeping still and where they do many things in ever better ways

Parents of the modern Bobby and Betty also want their children to display as much initiative and origin ality as possible — to think through their problems with growing independence The school, therefore, no longer tries to make all of the children in the class alike nor to do their thinking for them It not only provides opportun ities for exercise of initiative and originality but undertakes to stimulate them both The school cannot be satisfied with making children "gullible gobblers" of useless facts nor even of useful ones It aims, on the contrary, to guide children in critical evaluations of their own thinking and that of others and to help them dis criminate between useful and irrelevant materials Children of to day do not accept unchallenged everything that happens to be written in a book. It is the business of the school, however, to put them in touch with the best possible information that will help them answer their questions and will further whet their intellectual curiosity

Before we consider more in detail some of the practices of the modern school which have grown out of a recognition of children's needs, we may well ask ourselves what is meant by the "development of the whole child" Schools of the past have undoubtedly concerned them selves too largely with the mental development of children, to the neglect of other equally important phases of growth. The modern school is as anxious to avoid emotional stresses and strains for children and to build in them emotional poise and a sense of well being as it is to

teach them any number of facts, however useful they may be

The physical needs of children must also be given due weight if the school is going to deal consciously with the whole child The school must build sound bodies as well as active minds Practising healthy living in the school room has taken the place of fairy health castles and posters showing the virtuous milk bottle being pursued by the wicked coffee pot. The necessity for freedom of movement is recognized to be of prime importance by the school that provides movable furniture and opportunities to move it, and movable teachers who guide the activities which the children recognize as valuable because they helped to plan them and are carrying them out with ever increasing wisdom. Instead of planting children at fixed desks so far apart that they cannot cough in each others' faces, the school endeavors to teach them to cover their mouths when they cough and to stay away from otherwhen they have a cold The school realizes also that even after it has made maximum provision for proper lighting and seating occasions will arise when conditions are not ideal. Children must then be made sensitive to the need for proper light so that they will move of their own accord when the sun shines on their tables. They must, in similar fashion grow in ability to choose chairs of proper height The school provides many opportuni ties for the practice of right health habits and aims to develop right attitudes toward healthy living

The social aspects of education have also taken a prominent place in the modern school. Instead of making selfish individualists of children the school tries to make tolerant, cooperative, understanding workers of them. It conceives social development to mean the reaching out of experience into the wider social life of the community and of the larger world as well as social adjustments within the school. But it realizes that tolerant under standing does not necessarily result from an accumulation of information about society and that the mere accumulation of dull facts from history, geography and science are no more conducive to growth than the dullest of traditional procedures in any of these subjects. The modern school program must, then, be built in large measure upon experiencing

In line with the broader conception of the education of the whole child, there is growing appreciation in the school of the importance of many different learnings which accompany and focus upon any part of the program. It perience has shown that while attention may be centered for the moment upon one phase of work. Learning is talting place in many other directions as well. It is the busines of the school to see that all of these learnings are the best possible under the circumstances. Teachers and parents must be as much concerned about children's vays of talking, of listening, of planning of carres for belongings.

etcetera, as they are about the skill acquired in reading or arithmetic. Then, too, children's attitudes are recognized as very important elements in the working situation. What Bobbie is thinking when he is apparently giving rapt attention to the teacher or the work at hand may not be what we so fondly imagine. Facts obtained under pressure and accompanied by undesirable attitudes are detrimental rather than constructively educative.

#### MAKING A PLAYHOUSE

Illustrations of the use of the varying abilities of children in a group undertaking are common in the newer type of school For example a group of first grade children had watched with interest the building of a house in the neighborhood from the time that the steam shovel first began to "open its mouth" to the stage when the finishing touches were being added Several trips had been made by the group as a whole during the spring term and many children had visited individually and reported progress Of course someone suggested, after a time, the making of a playhouse in the schoolroom Dorothy, whose father was an architect, knew that a plan must first be made so the group began to study plans and blueprints donated by Dorothy's father Plans for the play house were drawn on large sheets of wrapping paper by a duly elected "Planning Commission" Advice was freely given by the rest of the children as the plans A discussion about the proper way to begin proceeded the actual construction led to a visit to see a concrete mixer in action and to the making of concrete for the foundation of the playhouse

Many challenging problems arose and were duly solved Wall paper had to be designed and painted Different children had ideas about this and as painting facilities were limited it was decided that each child should make a sample of the wall paper and submit it to the group for consideration and final vote Furniture was constructed for the house chairs a kitchen table a sink, a gas range, a living room table, a book case a Chesterfield set, a radio, a floor lamp, beds, a bureau, and a trunk schemes were selected for each room and decorations lept Curtains were dved Dishes were made of clay An informal radio program was broadcast every few days by different children who had something interesting to tell a poem to recite or a song to sing group of children was interested in making booklets about different kinds of houses, another group experimented with drapery patterns and finally made a sample book of them

Considerable reading was done to obtain information concerning the house its materials and its furnishings. The best renders in the class were able to read excerpts from rather difficult books dealing with these things but in most cases the teacher prepared simple mimeographed reading material to answer the children's questions and to start them thinking along new lines. New material of this kind was put on the library table every morning and children who had heretofore had small interest in reading probably because of their lack of skill, were delighted to find easy material that they could really read and report upon to the group. A record of progress in the making of

the house and its furnishings provided interesting reading for the group

Much number work "in action" was involved in the undertaking. Individual needs were carefully noted by the teacher and met through individual practice where necessary. Acquaintance with ruler and tape measure was made. The writing of numbers had to be practiced for only well-made figures could grace the plans and blue-prints. During a discussion of the kinds of wood used in building houses one child suggested that he would like to dramatize a story about different kinds of trees that he had found in a library book. A small group somed him and secret rehearsals were held in the hall. The final performance was not only given for the class, but was repeated at the weekly assembly for the whole school

We know that children are intellectually curious, that they are going to ask questions whenever an opportunity is given. The school of to-day not only recognizes this tendency but builds upon it, for children are encouraged to ask questions and to be increasingly critical of them. First-hand experiences, books, and materials must be provided to help the children find answers to their questions, for that responsibility is theirs also. Anyone who doubts the ability of children to ask good questions has but to try to answer some of them. For example, the group of six-vear olds who built the playhouse suggested the following questions which they would like answered by the group

Can you build a house wherever you want to?

Why does a little plan for a house cost so much money? What makes the light come on when you press the button?

What did people use for lights a long time ago?

Where does the water come from when you turn on the faucet?

Where does the water go after you wash in it?

How is the city water made clean?

What other people besides carpenters help build a house?

Where does the gas come from and how does it get into the stove?

What is plaster made of and what makes it stick so close to the wall?

Do bricks come ready-made like stones?

Where do people get glass for the windows?

What did people use for windows before they had glass? What kinds of trees give wood for houses? How is wood made into lumber?

Since plans must be made and questions answered the program of the modern school must make provision for group discussions and group conferences. Although parents may not recognize the education label "Group Discussion" on the daily program, it is really our old friend Language in operation in a keen and thought-

provoking form

In addition to the curiosity of children which finds expression in questions, plans, and discussions, there is also in every normal child an urge to experiment to investigate, to "think with things" Because of a recognition of this urge in children schoolrooms have become busy workshops where many thought-provoking materials lend themselves to the furthering of worthy plans

Boves, rolls of wrapping paper, laths, and pieces of wood of different shapes have found their way into the classrooms. Painting easels, long handled paint brushes, and paint in brilliant, stimulating colors provide another outlet for the creative abilities of children. Work benches, tools, and wood challenge the ingenuity of busy workers. Clay, cloth, and innumerable accessory materials contribute also to their on moving experiences. And of course there must be periods set aside for free choices of work, for surely no child can fail to find in such a situation something that he wants very much to do, whether it be to read a good story, to build a real playhouse, to write an invitation to the Puppet Show, or to practice the "four times" tables in order to be better able to keep score when playing the new number game.

A stimulating program this! Certainly parents of the children have a right to inquire whether provision is made for the building of character, for the development of self-control and obedience to rightly constituted authority Nothing is further from the truth than the statement that is sometimes made that children are allowed to do as they please in the modern school On the contrary, children are given many opportunities to practice self-control under wise guidance. They learn to make a better product by appraising the results of their own efforts and those of others and by profiting by the wider knowledge and experience of the teacher They learn safety rules by practising them every day They learn to use sharp tools by using them They learn to listen politely to others in group meetings which require that courtesy be shown to the person who has the floor whether it be child or teacher They learn what it means to wait your turn and to take care of yourself and of your belongings They learn what it means to accept a responsibility for watering the plants or caring for the library table, as the case may be They learn to consider the rights of others and grow in ability to finish what they start and to check their own progress Every day's program provides a period for doing this checking and every child is given an opportunity at this time to justify the use of his time and to get the advice of the other children and the teacher as to present results and further plans

Sometimes a chart is devised for checking progress or furthering habit formation along some particular line For example, a first grade group in a school where children came from homes where small attention was given to courtesy and politeness were exceedingly rough and rude when they were given an opportunity to help themselves to materials Of course that would never do, so the teacher devised a chart by printing each child's name at the side of a large sheet of wrapping paper and ruling off a number of columns so that the children might check their attainments in the appropriate squares to the right of their names There was a column for recording the completion of a piece of work made of wood, another for the reading of a story, another for the painting of a good picture, etcetera One column was headed "Patience" and the teacher explained that that was her column and that she was the only one who could make a check in that column as yet, but that she hoped others would remember to wait their turn more politely and to help themselves to materials in a more courteous way so that they might "mike a mark" in the column also. Although the chil dren were much impressed at the time, they did not all remember to be careful when the opportunity came to get materials for their work. Two children did remember, however, and the teacher at once called the whole group to the chart to watch Tony and Rosa make their marks in the Patience column. Each day there were more "Putience" people, and both attitudes and habits in handling materials were greatly improved.

Clearly, then, the modern school does not undertake to sugar coat learning so that children may be fooled into learning disagreeable facts. Instead it aims to make the child conscious of his needs and of the real work necessary in meeting them

Practice or drill is as necessary to day as it ever was, but the need for the drill is felt more keenly by the child because it is recognized by him as necessary to the further ing of his plans. Take, for example, the contrasted approaches to writing practice now and in the traditional school of the past Most of us can remember our early school experience with copy books. The first line on every page bore a statement such as "Moments are golden do not waste them" or "Strike while the iron is hot" and the remaining lines were left blank for practice. We wrote the first line with some slight enthusiasm, the second with a little less. When the teacher moved on to the next usle we hurned through several more lines each less painstakingly made than the last. When the teacher approached we exercised greater care. When the last line was finished we closed the book with a sigh of relicf, for we had written a page full

How different is the writing practice in the modern school. Perhaps a sign is needed for the play store, or an invitation must be written for another class to come to the puppet show. All agree that practice is necessary and plan together what is to be written. Then each child practices in the light of his needs for the teacher has kept a record of the peculiar difficulties of each child and has made this record available to him for guiding his practice. Drill is keen because it is purposeful and because it results in the use of the skill acquired.

In similar fashion many other aspects of child develop ment have made their demands upon the modern school and have changed both its materials and its procedures The school of to day is an active school with movable furniture, a flexible program, and adjustable teachers If we are asked to define what is meant by this Activity School, we can perhaps do no better than to cite the defini tion recently given by an eight year-old boy who had returned to school after an absence of several months during which he had attended school in another city On the morning of his return he joyfully exclaimed, "Oh I am so glad to get back here! That school where I went didn't have any 'Goin's On' like we have here " Indeed the children are entitled not only to "Goin's On" of the right kind, but to the guidance of understanding parents and teachers who cooperate in furthering the manysided development of the children

## THE WINNETKA PLAN

#### B1 CARLETON WASHBURNE

Superintendent of Schools, Winnetka, Illinois

HERE is a small city, a suburb of Chicago that is I well named Winnetka For "Winnetka' is an American Indian word meaning "beautiful land" Winnetka lies on the shore of Lake Michigan where once an oak forest grew It is a suburb of beautiful homes, each surrounded by garden and lawn shrubs, and usually some of the old forest oaks Winnetka's school buildings are modern, clean, well-aired well-lighted, attractive to look at, attractive to be in Each is surrounded by trees and shrubs and grass, and has ample space for the children to play Inside they are well equipped with movable furniture The rooms, especially for the little children, are homelike, with flowers, curtains goldfish and birds I et us go into one of these buildings and watch the children at work

We enter a first-grade room, a room for six-year-old boxs and girls

The children are seated at little tables, enameled creamcolor and covered with fringed, colored burlap cloths on which the children have embroidered designs. As we look around the room we see paintings made by the children, illustrations of stories they have heard, pictures of things they have seen on their field trips. These paintings are on large sheets of paper, about eighteen by twenty four inches in size. Each is mounted in a crude lath frame made by the children themselves and freely decorated by them

We see the children at work, each doing his own individual task. One is learning to recognize phrases, another to recognize separate words, a third is applying his knowledge of words to the reading of a story in his primer. Few children are doing exactly the same things.

The devices are such that each child can teach himself and correct his own work. Their absorption as they bend over their tasks, or their relivation as they stop to chat with one another is wholly childlike. The teacher is going about among them, sitting with this one a while encouraging that one taking a small group together and explaining some of their work. The whole atmosphere of the room is one of informality and pleasant serious work.

Then perhaps it is time for milk. The children pass the little bottles around, and each child drinks through a straw while the teacher reads them a story.

Now it is time to work on the little farm that the children are making. They have been out to a real farm in the country and have seen the barn and the cows and chickens and pigs. They want a make-believe farm in their classroom. They are full of ideas as to ways of making it. One boy has brought a large boy from home which will make the beginning of a barn. Some have modeled little animals from plasticene or clay. Others have drawn pictures of what they would like their model farm to be like. All have ideas. All pool them in the discussion. They reach decisions and get to work with

saw and hammer and paint brush and clay again wholly absorbed

Let us spend a large part of a day in a fourth-grade room, watching the activities of nine-year-old children We get there in the morning before the children come

The children enter the room informally his seat and takes from his drawer some piece of work As we go about among the children we find that most of them are perhaps doing arithmetic. A few are working on other subjects We stop at the desk of Charles, the son of the local butcher Like almost all the children, he is rosy-cheeked, decently dressed, natural and unrepressed He is beginning the subject of long division. He looks at his book and finds a simple explanation written in language he can understand The explanation carries him only one step forward It shows him how he can write down what he has heretofore been doing mentally in short division It contains several worked-out examples Charles covers each of these with a piece of paper and tries to work them himself. Then he compares his work with the work in the book

After one or two unsuccessful attempts he gets the knack and turns to the page of exercises The first of these comes under a heading "A" He works through this "A" assignment, perhaps occasionally glancing back at the explanation if he feels himself in doubt. When he finishes the eight or ten examples that make up this assignment, he finds at the bottom of the page a note "For answers, see page 9" On page 9 he finds all the examples worked out for him He compares his work Two of his examples are wrong He turns back to the page of exercises and does the B assignment five more examples of the same kind as those he has been attempting Again he looks to page o to see if his answers are right and if his work is properly set down. This time he has made no errors so he skips C and D and turns to Step 2 on the next page of his book

Let us look around at the other children One of them is completing his compound multiplication in arithmetic Another is ahead of Charles He has finished the first eight steps of his long division and is giving himself a practice test Helen has just received back from her teacher a test in compound multiplication that she took The test is not marked as to its quality Two of the examples, however, are circled and after each is written the number of the page in the Correction Book, where the child will find additional exercises of the same sort as those which she missed in her test. Helen takes a copy of the Correction Book from the teacher's desk and works the assignments indicated. She corrects the work herself and finds that she still is making mistakes turns back to the original explanation in her own book, but perhaps can not vet see what is wrong with her work (No matter how carefully the material is prepared, an

occasional child will need direct help from the teacher) Her hand goes up and the teacher soon comes to her and gives her the necessary help

At every moment the teacher is down among the children, working with them, helping this one over a difficulty, stimulating that one, putting these two who are a bit lazy into competition with each other, supervising the work of another—teaching every moment, but never lecturing to the class as a whole, or hearing class recitations

The arithmetic period lasts perhaps forty minutes Some children have stopped their arithmetic before the time was up A few have been working on linguage or reading or history and geography These children are those who are classified as self-reliant and therefore may budget their own time, or perhaps they are children who are ahead in their arithmetic and behind in some other topic, and have therefore been told by the teacher to spend more time on the subject in which they are slower. less on the one in which they are faster The period closes, but Charles is oblivious to the fact. The teacher glances at him, notices that he is absorbed in his new undertaking, and does not interrupt. The other children quietly take out their language books and begin similar individual work in them

Again there are practice exercises so arranged that the child who learns a new step quickly may skip additional drill and go to the next step, while the child who makes mistakes the first time has a second or third or even a fourth opportunity to practice so that he may master that step before going on to the next Again we find the children at all sorts of different points in their work Here is a child who has begun fifth grade work, although still sitting in the fourth grade room. Here is another who has not quite completed her third-grade work Each a practice test is checking himself and practicing where he finds himself weak Lach child when he completes a practice test is taking a complete diagnostic test given by the teacher These diagnostic tests, like the practice tests and teaching material, have been prepared by a group of teachers working together and have been re vised over and over to fit the needs of the children The tests have been made, not for the purpose of marking children, but for the purpose of finding out where each child needs help They are therefore not dreaded, but are asked for The test is the way the child can prove to himself and the teacher that he is ready to go on to the next unit of work. A failure on the test simply means the necessity for practicing on his weak points, but no further retardation in progress

Each test is made in several forms, all equivalent. The teacher may give one form to one child, a different form to another, but there is little danger of children trying to pass on to one another the answers to these tests. They know what the tests are going to contain in advance, for their practice tests contain exactly the same elements. There is no temptation to cheat

Now it is playtime. The children in this room and those from one or two other rooms go out to the playground together. A trained playground director awaits them. She helps them to organize themselves into teams.

for some form of competitive game. As they play she helps to bring home to them the ideal of sportsmanship of good fellowship, of team play. The playground is not merely a place for recreation not merely tiplice for plays call development. It is also a place where ideals are meal cated, where children learn to be social minded where they learn the value of persistence and of team work.

Playtime is over These children return to their rooms, while other children go to the playground

The children sing — not songs written a pecially to teach children singing, but fine old folk songs from (nor many, from Russia, from Spun, from I ngland or songs by some of the great masters. They sing for the joy of singing, wasting no time on drills in "do no me for such drills are reserved for those who are going to special ize in music and may be given higher in the grades."

Then perhaps the teacher reads aloud to the children a story or some poems, and they discuss them to ether. This work is for appreciation not for mastery of knowledges or skills. It is quite free it is entirely unmarked it has nothing to do with promotion.

Assembly time his come. The children go into the assembly room, where two or three hundred of their fellows are gathered. Yesterday one of the rooms had presented a play that it had worked out. Fo morrow the assembly will be given over to a talk with a stereopticon. But to day is a business meeting.

The meeting is presided over by an eleven year old girl, who has been elected chairman. The secretary a boy, reads the minutes of the last meeting, a few routine matters are cleared out of the way then the chairman asks if there is any new business. Our friend Charle from the fourth grade rises in his place In the last business meeting in our room," he says we discussed the question of water pistols in school. A lot of the children have been bringing water pistols and squirting water on each other on the playground or in the halls. The chil dren in our room don't think we ought to allow it any more" Charles sits down. A fifth grade boy stands and is recognized by the chairman. 'We talked about it in our room, too and we decided that it would be all right to bring water pistols to school if we only used them on one part of the playground and everybody who wanted to play with water pistols went to that part of the play ground I don't think that we should keep everybody from having water pistols just because some children don't want them. I don't see what harm they are any way"

A girl stands up "The boys fill their water pistolwith dirty water It's likely to have germs in it and to make us sick. It gets our clothes all dirty too. I don't think we ought to allow any water pistols in the school

A box "We might ask the jaintor to set out some pails of clean water and have a rule that everybody would have to fill his water pistol from those pails of clean water instead of from puddles or from any dirty water. Then it we kept all the shooting of the water pistols to one part of the playground, I can t see that it would do any harm."

Charles speaks again. 'The water vouldn't stay clean if every body filled his pistol in it. And the children who wanted to play with water pistols would hide behind the

children who didn't want to so as not to get shot with the water, and I don't think the thing would work at all I move that water pistols be kept away from the school and the playground"

The motion is seconded. There is a little more discussion. Then a vote. A large majority votes against the water pistols. (From that time on, no water pistols appear in school—the children usually obey their self-imposed rules.)

The children go home for luncheon

It is afternoon Our fourth-grade children are returning to their seats Each one is taking out his work. It is spelling this time Let us see what Charles is doing

He has a spelling book in which certain words are checked We find that all the words for the first half of the year were dictated to him and all the other pupils in the room in September, before the children had had a chance to study them All words missed by any child were checked in that child's speller, thereby making an individual word list for each pupil Charles has studied six of these checked words the preceding day hands the list of these six words to his partner, Walter who has moved his desk closer to Charles for the spelling period Walter dictates to Charles the six words that Charles studied vesterday Charles writes the words Then Charles dictates to Walter a similar list of the words that Walter studied yesterday The two boys correct their own work with each other's help. Then each sets about the studying of a new group of words for to-morrow The words that are checked in Charles's book are not the same as those checked in Walter's for they missed different words in the pre-test in September While the children are studying, the teacher is down among them giving them devices for learning to spell their words correctly encouraging them, helping them On Iriday, each child will review all his words for the week and on Monday the partners will dictate these review lists. The teacher will then correct the papers and will note in each child's speller the words which he has succeeded in getting right on a weekly review test. Were we to visit the room again at the beginning of the next semester we would find that ill the checked words of the previous semester are reviewed by each child

And now it is time for social science

Instead of remaining in the fourth grade — which is just beginning this subject — let us step into a sixth-grade room and watch the eleven veri-olds at work

In social science for the first time we find all the children working on the same general topic. Some, it is true have nearly finished reading the story of the Vikings, others are nearer the beginning. This Viking study includes both the history and geography of these bold Norsemen for one cannot understand the Vikings without knowing something of the country in which they lived. Throughout the Winnetka schools history and geography are a single subject, not two separate subjects. People's lives must be lived somewhere. To participate in their lives with them involves geography as well as history.

As we look at the material we find it written simply, dramatically, interestingly. We find that the picturization of the life of that different civilization is made so vivid that the child is experiencing it himself.

As he reads about the Vikings, the child draws maps or fills in maps, showing where they lived, showing the topography of their country and showing their journeys. As soon as any child completes a topic he comes to a practice test by which he can check up his own knowledge of the subject. Having satisfied himself through this practice test that he knows the essential facts, he asks the teacher for a real test, which is again complete and diagnostic, as in the case of other individualized subjects.

But social science — history and geography — is not only an individual subject. It is not merely an amassing of facts Important as it is that children shall know certain basic facts, it is still more important that they shall have an experience in social living, that they shall have stimulus to creative work. It is in order to make it possible to use social science in this way that the children do not proceed strictly individually in this one subject If a child completes a topic before his fellows, he may use his surplus time for arithmetic or language or spelling or reading or, if he wishes to do so, for additional work on this particular topic. The child who is unusually slow in mastering the topic may borrow some time from his more completely individualized subjects, so as not to hold the rest of the group back. The fact that all academic subjects, except social science, are completely individualized makes it possible, without violating the principle of individual mastery, to have all children on the same general topic in this one field. Let us watch this sixthgrade group

They are studying the life of the Vikings They are trying to imagine themselves living in those days of adventure They have decided to have a "Viking Day," and to this end they have already begun to make their room over into a Viking feast hall. At one end there is a throne on which the Viking Chief will sit Two girls are making tapestries to hang beside the throne Each box is soon at work on his shield, making his own design. A group here is making a Viking boat. Another group has gone down to the lumber yard to borrow some lumber for a Viking feast table. A few girls are planning together what they can have for their Viking feast They are reading in books about what the Vikings ate. The art supervisor drops in and gives the children suggestions and help in the designs of their tapestry or the shields, and answers the enger questions of some of the girls concerning the costumes they are making. Perhaps the children sing as they work, an old Norse folk-song which they have learned in their music period, because the music supervisor knows that the children are interested in the Vikings They plan to sing this song at their feast

One boy is telling some of his friends of a plan for making drinking horns "My father works at the stockwards" he says "He can bring us some steers' horns We can paint them and use them to drink our mead"

In such an activity as this, ample opportunity is given for the widest range of ingenuity and initiative. Each child is encouraged to vary from his fellows, to express himself, to create. Yet all are utilizing their special interests or abilities for the welfare of the group enterprise.

The Viking feast half is not for the purpose of teaching children about the Vikings. The amount of time they will spend on this one project is entirely disproportionate

to the amount of valuable information they will get from it. It is the outcome of their reading concerning the Vikings—the outcome of their factual work rather than a means to the mastery of facts. To teach facts exclusively through such projects would be to limit very seriously the things with which children become familiar. Much learning can be done more economically through the direct means of reading and study. Out of this reading and study, however, may grow ideas for action. These are given full play and are made the basis for creative expression and a training in group cooperation.

A reference outline is kept in each school room, in which the teacher will find suggestions from the supervisors as to types of activities, as to sources of reading for the teacher and the children, and as to ways in which the playground, music, art, and socialized activities departments may be of assistance. This outline is merely suggestive and helpful. Each teacher and each group of children work out their own group and creative activities.

The day ends all too soon and the children leave the school, eagerly talking about their plans

Let us conclude this informal account of the Winnetka schools by abstracting from the schoolroom activities we have been observing the underlying principles of the individual technique, in accordance with which the Winnetka schools have been organized

First of all, the curriculum is divided into two distinct parts. One part consists of those knowledges and skills in which we are trying to make children like minded. The other consists of stimuli and opportunities for creative work under social conditions.

We want all children to be able to spell alike We want all children to get the same answer for a sum in addition. We want all children to have the same notion as to the general locality of Paris. We want all children to have the same person and the same general achievement in mind when we mention Columbus. Since children differ very widely in their ability to grasp such facts and skills, a technique has been evolved to make it possible for each child to grasp them at his own rate. This technique consists of three steps, as follows.

- (1) The objectives, or goals, are very specifically stated. They are determined as fur as possible on the basis of research as to genuine social needs. They are organized according to the results of observation and research as to what the children at various stages of devel opment can master. They are attainable by every normal child—each child must reach 100 per cent mastery of each goal. Subnormal children, of course, have a modified curriculum, the curriculum being modified by the Department of Educational Counsel after a careful case study of the child. All other children are expected to reach mastery of each of the objectives.
- (2) Materials of instruction have been prepared that are self instructive and self corrective. The child can, to a large extent, teach himself each new step of each process. He practices on each step until he has that step mastered and then goes to the next without waiting for any one else. He corrects all his own daily work and his practice tests.
- (3) Complete diagnostic tests have been provided in a number of forms. Two or three forms appear in the

child's text material as practice tests so that he may diagnose his own difficulties and assure himself of his readiness for a real test. The other forms are administered by the teacher and corrected by the teacher, they contain, however, no elements that are not contained in the practice tests. Both practice tests and real tests are keyed in such a way as to refer the child to the specific remedial exercises which he needs in order to overcome the difficulties which the test reveals. The tests are marked only by an indication of where the child will find the necessary practice work in order to reach mastery. A child having missed one test does the indicated practice work, then takes another form of the same test.

About half the morning and half the afternoon are consumed by the individual mastery of the knowledge and skill subjects. In these, promotion from grade to grade is individual, continuous, and by subjects. It does not involve any change of classroom. The room in which a child sits is determined by his social age—the age of the children with whom he can best associate in the half of the morning and of the afternoon that are left free for group and creative activities.

These group and creative activities are frequently centered around the children's work in social science or literature. They also include, however, appreciation of music, art and literature, self governing assemblies, playground activities, shop work, the writing, editing, llustrating and printing of a self supporting school newspaper, and a wide variety of other means for stimulating creative work on the part of the child and for developing in him a social consciousness.

The purpose of the group and creative activities is never acidemic. There is no attempt to teach subject-matter through these activities, although there is necessarily frequent correlation between the socialized work and the individual work. Such correlation as exists, however, is incidental and unforced.

Creative work is a direct stimulus to the child to vary from his fellows. It is the exact opposite of the work for mastery of knowledge or skill in common with his fellows, although it may make use of the latter or may stimulate it. Variation is essential to evolution. Schools in the past have not given sufficient time or attention to the need of or variation among pupils. In the Winnetka schools, through creative work, there is an attempt to stimulate variation, originality, and initiative

Too much stress on individualism, however, would make society centrifugal to an extent that would be disruptive. A social consciousness is most seriously needed at the present stage of the world's development. The children are therefore given their creative work to a large extent in a social setting, where each child is contributing his particular ability or interest to the welfare of a group enterprise—dramatizations, discussions, games and group projects tend to give this social consciousness.

It is fitting, is it not that the schools in the "beautiful land", Winnetka, should attempt to be places where children live happily where they have freedom to create, freedom to live socially freedom to express themselves as children, and where at the same time they are fitted in a thorough, scientific way for participation in the life which surrounds them?

# THE INTEGRATED CURRICULUM AS A MEANS FOR IMPROVING LEARNING

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PUBLIC education in America is based upon profound faith in the potentialities of the individual man and upon universal education as a means for the preservation of the state. Good citizenship and worthy services to society are generally accepted as desirable outcomes of our education, and home and school are recognized as the chief training grounds for the development of human culture and the successful transmission of the social heritage from generation to generation by the processes of teaching and learning

The people of America to-day live in an entirely different world from that of the nineteenth century. Rapidly changing conditions in social, economic, and industrial life have brought about radical changes in living conditions, in attitudes of mind in interpretations of democracy. New conceptions of living, new ideas of behavior, new methods of work and recreation new moral situations new relationships both social and individual, new responsibilities and new privileges—all have brought about the necessity of closer cooperation of the home and the school in providing an enriched and invigorating environment

The enrichment and expansion of this environment in the child's world therefore, must come largely through his acquaintance with and his use of these treasure houses of human experience museums and libraries. The great open book of the heavens the earth's own story of its mighty forces and development the ser and its wondrous marvels, man's advancement through his inventions and his overcoming of natural difficulties whether it be the story of how he first made animals serve him as beasts of burden or how he has conquered the great expanse of water through adventurous spirits such as a Lindbergh or a Byrd — these and many other marvels of human experience and of natural science still maintain the realities of life which challenge the vouth of inquisitive That children of the home and the school may have life and have it more abundantly all of these wonders of the world and the story of how they came to be may be brought to them from the fields of history, science literature, and art as they are found embodied in our hentage of the written word

It is therefore through the uses of his experiences that the child builds daily his own destiny. Teaching and learning growing and living are greatly enhanced if the environment of the child becomes nich in romance filled with stirring adventure, satisfying in its wealth of heroic deeds penetrating the varied avenues in the domain of the material and the intellectual world. To create and guide children in such an environment should be the outstanding chillenge of those who would become the leaders of youth

Parents and teachers are always interested in finding ways for improving their teaching and guidance of children. Much of the work of parents and teachers is mutual in that it deals with the child in his learning stages during growth and development preparatory to some worthy service or activity.

#### PSYCHOLOGY AND EDUCATION

Modern progressive education is based upon theories derived from scientific study of the learning process Modern psychology teaches us that any significant experience gives educative results which affect every part and aspect of the self The whole child therefore is involved in every act of learning Moreover, according to the new theory of education, both child growth and the learning process are continuous Teachers and parents should recognize the child as a behavior organism susceptible to influences of both inheritance and environment Behavior is essentially the individual's modes of response and the best education is that which secures purposive control and right conduct For as the learner faces each new situation he must be able to reorganize his old experience to fit the new situation as it develops. In this respect learning is a continuous rebuilding of both mental and physical habits through integrating the new meanings with meanings brought over from the past for the purpose of making the necessary adaptation to secure some satisfactory and desired end

'Meanings then are a convenient term for the smaller elements that we put together when we 'size up' a situation or 'recognize' a thing (in any full sense) or make an appropriate plan of action for dealing with a situation Meanings clearly are learned, the results of past experience. Moreover, one's meanings at any one time may be valid or not. They can be well organized or not. In short, the meaning is the unit element of mind as mind is the name we give to the way in which any one grapples with the stream of novelly developing situations. Education is clearly much concerned with getting many and good meanings and in organizing them for best use".

Experience is the great potent force of human development. The chief problems of education are to find the best methods and means of aiding the selection, stimulation and interpretation of experience. Those who guide the processes of education must take into consideration the fact that the purpose of education in so far as it affects the individual, is to bring about the highest development of all the capacities of the whole child which contribute to better living and which tend to develop the most complete control over all acts of the behavior organism.

<sup>&</sup>lt;sup>1</sup> Kilpatrick Wm H <sup>4</sup> A Reconstructed Theory of the Educative Process Teachers College Record XXXII, 6 (March 1951) p 538

A perfect education of this type would give what the psychologists call an integrated personality, which means that the individual is capable of commanding and controlling all his powers and using the results of his previous experiences to meet the challenges that come to him in life situations This kind of training would find a way to eliminate waste in the educative process by the method of selection Such training is designed to eliminate confu sion and disturbance in situations which affect the happiness or conduct of the individual

Moreover, conscious education, if it is to be of the right kind, should have for its chief purpose the improvement of life Since experience is the warp and woof of life itself. is it not evident that parents and teachers must deal with the child in his natural environment, if they would stimu late natural processes of growth and development Doctor Dewey defines education as "The reconstruction or reorganization of experience which adds to the meaning of experience and which increases ability to add to the course of subsequent experience"

From the foregoing quotation, one must infer that experience in itself may not be education. It is only when the experience which is reorganized adds to the meaning of experience and enables the individual to profit in his subsequent conduct by such experience that it becomes a worthwhile contribution to one's education Meanings and insights, or understandings, together with the interests and attitudes of the learner, are the motivating factors which generate in the individual power to use his education The extent to which parents and teachers succeed in leading the child to help himself and thus become independent of assistance is the best indication of this progress in learning Because parents of to-day have little opportunity for providing a natural environ ment simple enough for the child to comprehend fully and challenging enough to "stimulate natural processes of growth and development" the school must take over much of the education formerly carried on in the home

#### THE CHANGED ENVIRONMENT OF THE CHILD OF TO-DAY

Modern life as lived by the child of to day is quite different from that lived by the child of twenty, thirty, or forty years ago At that time the school well supplemented the work of the home in educating the child by furnishing him knowledge of and facility with the "three R's ' That was all it was expected to do or needed to do the home could do the rest. It is a mistake to assume that the adequacy of education thirty years ago was due en tirely or even primarily to the effectiveness of the school Granting that the older men and women of the present have showed themselves extraordinarily well equipped for participation in adult social organization and in understanding and appreciating the social structure of the time, it does not necessarily follow that the school in which they received instruction should receive the major portion of the credit

We should bear in mind that natural participation in the life activities of the home and the community was possible then, and this it was that revealed to the child the social and economic organization and gave him back

ground and insight into the life of that time thus maling children capable of assimilating knowledge and information, skills and appreciation from whatever source they might be gleaned Children of that day learned just as they do now - through their own experiences. But the simplicity of the social organizations then made it quite possible for them to get these necessary experiences in a natural setting - a thing which is more difficult to do

There was little disposition on the part of the parents of thirty or forty years ago to over-emphasize the reading writing, and spelling training of the child to the disregard of the very practical interpretation of living needs and necessities received by direct participation in the home life and the solution of its problems \s a consequence the total life of a child then, ilthough it consisted as it does now of life at home and life in the schoolroom was much more integrated than it is now The separation between the home and the school was negligible in its effect upon the child for the simple reison that the home of that time was compelled by economic necessity to furnish the content and meaning to the materials of in struction given in the school in such a way that the life of the child was complete was rounded out and made meaningful as far as teaching him to understand his environment

There was little in the life of adults that was not also in the life of the child of yesterday The social and eco nomic life of the community was so simple and so easily understood that he could participate directly. Transpor tation and communication facilities were simple and easily understood through participation rather than through lengthy explanations Production was witnessed from its inception to the finished product

Contrast with this the complicated life of to day duction transportation and communication are now almost entirely machine performed. A child may partici pate in some particular part of a process but high special ization limits this and, as a consequence a child's life lacks the possibilities of integration that it formerly had Tew processes either in the social the economic or the industrial world of to day can be understood by the child because of their great complication and because of their separation, one part from another, in this period of high specialization

As an agency of social progress, the school has sensed the necessity of reorganizing the materials of instruction to meet the needs of children wandering in an uncx plained and complicated world of which they know little and can interpret only what they can understand day the school is attempting to build a curriculum broad enough to meet the needs of children in every vall of life varied enough to serve the best interests of each individual child deep enough to strike at the fundamental problems of life and practical enough to fit children to live in a twentieth century environment, yet simple enough to be mastered by children without in enormous los of time Educators now realize that a new type of education is needed to furnish the boys and girls of to-day their full share of experiences a school in a high experi ences worth while in themselves and educative in the sense of revealing present environment are paramount

This means that upon the school must be placed the burden of providing a simplified environment in which the child may live as an active participating individual. The point that must never be lost sight of in trying to solve the present problems of education is this Youth to divide the present problems of education is this Youth to divide Confronted with environment so complicated, with natural activities so separated by specialization that there is little practical educative value in them because they are beyond the comprehension of the child

It is, therefore, the purpose of the integrated curriculum to provide in the classroom new experiences and learning situations supplementing those in the home, so that the child with an inquisitive mind and creative desire may participate in the life of the community through the activities and learning situations of the classroom

Herein seem to lie the advantages of the integrated curriculum as opposed to the traditional curriculum which is set up in terms of subjects, with patch-work selections from science, history, and geography, and without any real or vivid relation to life itself. The integrated curriculum is organized and constructed about central themes selected to promote desirable learning outcomes Such a curriculum helps the teacher to find sufficient aids and subject matter to direct the learning processes so that the insights and understandings will become more unified and related Life needs, rather than facts from various unrelated subjects, become the guide posts for directing the learning processes The integrated curriculum is more or less a transmutation of the earlier practice of subject learning and lesson reciting into life experiences and living so that learning may become natural and effective The more completely the child can unify his learning experiences, the greater satisfaction he derives from his effort, consequently the more integration which can be secured through careful planning of curriculum materials, the more lasting will be the learning The school that uses an integrated curriculum operates best by emphasizing natural environment, by stimulating greater freedom for individual development, and by providing friendly guidance and experiences ad justed to age and capacity needs Such a curriculum may be designed so that pupils may advance normally according to their abilities and efforts

This curriculum may be set up in larger units of study based upon interests which are known to have a strong appeal to children of the age level for which the unit is planned, and including assimilative materials which have certain intrinsic value because of their significance in the present-day social life of which the child is a part Because the integrated unit, with its culminating activity centers the interest of the child upon the achievement of some purpose which he has made his own, it provides the driving force which motivates his study and causes him to reach out into first one and then another of the various fields of subject matter to get the materials he needs in carrying out his activities Therefore, the integrated unit is more inclusive than the usual unified course in social studies which provides for bringing together the history, geography and civics which formerly were taught as separate subjects In the integrated unit, history, geography, civics, science, literature, music, art, and industrial arts, as well as the traditional "three R's," are brought to bear directly upon the solution of the child's problem, thereby creating situations in which the skills may be learned in connection with normal life situations. This process of actually seeking and finding the materials needed and of integrating them and using them toward accomplishing a desired end constitutes real thinking.

In the development of the unit, emphases may shift according to the interest that for the time is the driving At times the major emphasis may be upon the enrichment of meanings and understandings, at other times attention may be concentrated upon drill to improve techniques so that they can be used effectively in carrying on the activities of the unit Controlling themes and generalizations may chart the course, but the object tives set up by the pupils themselves determine the specific learning procedure The subject matter or content is the medium through which the learning process moves One advantage of the integrated curriculum is that it brings together related materials from all fields 
It leads the pupil from the single textbook into the vast store of knowledge to be found in many supplementary texts, for it must be remembered that the success of this type of curriculum rests largely upon the ability of the school to provide for its pupils an abundance of reference materials essential for finding needed informations

#### A UNIT AND ITS OUTCOMES

This unit is entitled "The Making of Americans, or a Study of Colonial Life" The central theme of this unit is the influence which physical environment everts upon a people's mode of living This theme controls the assimilative materials and learning situations suggested. In developing the unit, pupils acquire an understanding of certain important truths, such as the influence everted by climate, by the natural resources of the country, and by the amount of control which the people have established over their physical environment. This theme unifies the study of colonial life It leads to a fuller understanding of the hardships and problems of the New World and the adaptations and adjustments which the colonists had to make in order to meet these novel conditions Likewise, this study is related to many of the present-diy problems which grow out of man's adjustment to his environment, such as the problem of getting the best returns from farm land, the problem of conservation, the problem of getting pure and nourishing food, the problem of good government in a community in which the conditions bring large groups to live together

The outcomes sought from such a unit of learning are that children will become more aware of present-day problems, that they will acquire acquaintance with earlier peoples and thereby have a better understanding of present-day life in their own community, that they will develop greater appreciation of American institutions and culture, because of their acquisition of a better understanding of how they have been developed

This study will also bring much emphasis upon the natural environment, hardships which nature herself imposed, and the difficulties of man's combatting them. It will vitalize the children's interest in the development

and carrying on of the early industries, and help them to contrast and compare those industries of the colonists with present-day industries Typically among these might be mentioned fishing, farming, lumbering, and mining

This unit is set up so as to provide the fullest rids, devices and directions to help the teacher to enrich her work in the classroom. The overview is intended to give the teacher the purposes and possibilities for teaching the unit It emphisizes the central idea of the unit by showing the effect of environment upon political and social ideas. For example, it shows how the need for cooperative effort to secure protection against some of the natural enemies of the early colonial day lends to the development of a form of representative government to provide a means for common defense. Interdependence is further increased as progress is made by means of travel and communication, so the stories of the knitting together of these colonists is related to man's adaptation in order to establish his control over his natural environ

In this unit the teacher is given opportunity to knit together the geography and history, to bring in the literature bearing upon the particular period to use such mathematics as might relate to some of the problems which the colonists faced or which have come down to us from that period. The unit offers opportunities for using all types of learning in carrying out the activities by which pupils may become really acquainted with the life of the colonists, and for contrast and comparison of life in colonial times with the life of to day

Children delight in constructing the more simple utensils or tools or machines used in the earlier period I earning about the development of the arts and crafts in the colonies, studying Indian designs, learning the secrets of the field of natural science, finding out which has brought about the development of our modern agra culture, are problems that grow out of the study of the life of the pioneer farmers in the early colonial div Likewise the related study in thrift and safety music and folk dancing dramatization and story telling all find an abundance of material for motivation and develop ment in this unit

#### A UNIT OUTLINE

The following outline of the unit will give a more com prchensive view of the materials included in a course of study unit

- I Theme, generalizations, and desirable outcomes II Overview (including suggested present day
- problems) III Suggested approaches
- IV Suggested activities and content materials that may be used in developing the unit
- Suggestions for using the assimilative materialin a definite classroom situation
- VI Suggestions for culminating activity

VII Bibliography References for pupils References for teacher Visual aids

Materials for study of art and music appreciation VIII Check list of skills and techniques to be empha sized (Reading language arithmetic etc.)

It is entirely possible to set up an entire curriculum for the elementary school or for the junior high school or for the senior high school in terms of integrated units The course of study units must provide the means of integration, they must provide the materials for teaching with suggestions as to how the teacher may make the approach and presentation in the classroom. It is left however to the teacher to work out her own teaching units in adaptation to the learning situations and the student group

There is nothing part cularly novel about this type of curriculum other than that it brings up many problems which the curriculum by subjects does not involve. In the first place, it involves a roorg inization in administra tive control Time illotment by subjects teaching by subjects, and laboratory activities in a special field do not work well with this type of curriculum although it has been proved that departmentalized teaching is no handi cap to carrying on the work of an integrated program when the curriculum materials are carefully planned to provide for cooperative activities. In the second place the teacher and the way he uses the materials as well as the way in which he grasps the significance of learning processes as an integrating factor, become more and more significant in operating this type of curriculum for recit ing lessons reading pages from textbooks and solving problems by cases are not the ends provided by such a curriculum. In the third place the child becomes more and more the center of the school. Growth and develop ment of individuals is stressed rather than class achieve ment

Since the teacher must provide the activities and the assimilative materials for meeting these individual differences he is greatly aided by a curriculum which envisions the larger aspects of the learning processes and which provides for the searching out and leading on activities that utilize the environment of the child to its fullest extent

The integrated curriculum therefore improves the learning process because it places the emphasis upon the really big values of life — the bringing of the school into closer touch with the home life and the out of school life of the child the development of habits of careful re earth and of enjoyment of the world of books and the building of a self which is able to seek and find and use never mean ings in interpreting the problems of life. Ouoting from Secretary Wilbur's address to the White Hou's Conjer ence 'We ill have a common aim which s to prepare the American child physically mentally and morall more fully to meet the responsibility of to morroy than we have been able to meet that of to-day ?

<sup>2</sup> White Hou e Conference 1930 p 15

## THE WIDER VISION

#### BY LEANKLIN BOBBILL

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THE man of to day is a citizen of the wide world Politically he owes allegance to a particular country, but in most other respects, his relations are not limited by political boundaries. What he buys comes to him from the entire earth, and what he produces is carried to these same distant regions. He listens to the music of all nations, views their art, borrows their technology, reads their books directly or in translation, assembles and utilizes their science, looks at the universe through their systems of philosophy, and worships as an adherent of some world-wide communion. He is a unit in a planetary interdependency.

As a result of his wide interrelationships he is concerned with all the nations and peoples of the earth, with human institutions, agencies, and behavior the world over, with lands, topography, sens, climate plants, animals, inventions, standards of living sanitation, recreations, education, religion, customs, laws, and the thousand other things that make up this complex world of ours. He needs to deal with these in his thought and in his practical affairs. He therefore needs to know them. And their profusion and bewildering complexity calls for a vast amount of knowledge. When viewed in relation to man's limited intellectual capacity, the world with which he is confronted is a very large and difficult place indeed.

Man's present situation and relationships are the outcome of forces that have been operating in the long past, and which will continue to operate in the future. His practical interests he mostly with the present and the future, but if he would see the forces which are destined to toss him hither and you he must see them where they have been operating and where they clearly have shown their nature and their power. This is in the pages of man's long history.

This history shows that the world is a complex of a thousand active living forces that are incessant in their operation. The events of history are but the concrete forms in which these ceaseless forces manifest their presence. The result is that we are carried forward on the crest of a vast flood with things whirling and swirling all around us. While doubtless there is stability and fixity somewhere, yet, viewing the appearances of things, through the eyes of recent science, it appears that nothing is fixed, nothing is stable, but that all things flow.

Day by day, hour by hour, even minute by minute, man must readjust his thoughts and his outward behavior to this changing world. He must continually see it in its ever changed form or in his changed relation to it. Rightly to deal with it he must know it for what it is and not for what it was yesterday, last year, or ten years ago. Accurately to adjust himself to it he must see it in the moving present. He must keep abreast of it in its thousand changing aspects.

For the muntenance of this current understanding he must view the world directly with his own eyes, listen to

the experiences of others, discuss interesting aspects, and consider problems. A basic, perhaps the major, means of this current vision will be his reading. Newspapers, magazines and books will be open windows out upon the vast world in all its phases and regions, and backward over the past. Better than anything else that man has invented, these readings enable him swiftly and economically to keep abreast of human affairs. The civilized man of to day, then will read continuously, by which we mean through all the veries of a long life, widely, that is to say, concerning all the factors and phases of reality, and deeply, by which we mean that he will look beneath the surfaces to see the underlying essences and forces

If such reading is to be a lifelong activity, interests must be awakened in the multitude of things. This cannot be a general "interest in reading" or a general "reading habit." It must be an interest in the things which constitute reality, an interest in the things whether there exist any readings about them or not, an interest which calls for such readings as do exist. The major technique, then of getting this lifelong reading habit under way is first of all that of awakening interest not in reading itself, but rather in the things about which persons are to read As we have indicated, the catalogue of these things is very long

Interest grows from a number of roots direct observation, use of things, discussion, listening to the experiences
of others working with the things, play that involves the
things and the like. To read about them, especially
when the readings reveal matters concrete, vivid, and
striking is one of the fundament il methods of awakening
interest in them. The growing individual should have
thrilling readings, so far as they can be found, about all
the countless things in connection with which his interests
are to be awakened. So far as possible, these readings
should employ every legitimate device for attracting and
holding his attention.

This awakening of his interest must be a long process that covers the entire growth-period from infancy to, and through adulthood There are several reasons why the process must be a long one One is that the field of human concern is so wide as to call for years of reading A second is that the limitations of the child's mind are only slowly pushed back He must begin with things that are simple and gradually move outward to the things that are more and more complex. A third reason is the transiency of impressions made upon the human mind One forgets quickly except as things are gradually impressed by repetition Hence one should read abundantly through childhood and youth so as to meet with the things over and over again. All of these reasons call for width abundance and continuity of reading during each of the years of one's growth

Interests are not sleeping things that can be suddenly awakened by some simple awakening process. They are

things that exist in the beginning only in their poten tialities, and which grow up slowly out of experiences. The more abundant and vivid the experiences during the growing years, the more vital and enduring will be the interests that are awakened

Neither is information a thing that can be grifted upon the mind through the simple process of reading the summary or general statements of textbooks. It, too, must be a gradual growth that results from continuity and repetition of the concrete experiences of seeing things from various angles and in various ways. While it will result from experiences of many kinds, yet aside from direct observation, continuity of reading is probably the most vital and valuable of the experiences that build this accretionary information.

While reading should be abundant, the opportunity far outruns man's need This can be shown by a few figures Let us suppose that the average civilized person should read fifty books each year This is the amount recom mended by Mr H G Wells Doubtless with our modern methods of teaching silent reading which enable one to attain great speed, he could do it, and certainly for his civilized purposes, he needs to do at least that amount, even though it be several times the actual average Tifty books a year, then, for sixty years would be only three thousand books in a long lifetime, whereas ten thou sand new books issue from our presses each year, not to mention those of England, France, Germany, and the other lands Considering the vast accumulations in our libraries, it is obvious that with even the voluminous reading that seems advisable, a person can read no more than one book in every thousand

These abundant and available readings present us with the serious problem of making wise choices. For this task, naturally, one must have reliable criteria of judgment. The following are some of them

r Readings should be chosen with a view to giving r balanced vision of the various things that make up the world, past and present They should show all parts of the world, all races and peoples, all nations, all social classes, the various human occupations, the multitude of social agencies and institutions, and the endless variety of human or social relationships They should show all kinds of human beings young and old good and bad wise and foolish, high and low, with their varied dispositions, personalities, and characters They should show all sorts of human activities in man's ceaseless adjustment to a world that is rather too much for him Especially should they show all kinds of human hopes, fears, aspirations strivings, ambitions, loyalties disloyalties, loves hates valuations, and whatever enters into the mind and heart of man They should also show the vast stage upon which the great human drama is enacted that is to say, the whirling planet in its various regions aspects and moods, the varied vegetation that clothes it, the astonish ing animals that room its surface, and the physical sub stances and forces of which it is constituted

This criterion calls for books of travel which reveal nations and peoples, biographical and historical stones of peoples in all lands and regions, stories of persons of all social types and classes, stories of persons of all ages from infancy to old age, stories of animals, stories of plants, in sum, stories, descriptions, and expositions which reveal the world in all its varied aspects moods and changes

- 2 Readings should show present day reality. One's adjustment must be to the world as it is. He must therefore, see it and know it as it exists in the present Beginning rather early, therefore boys and early should read newspapers and magazines which present a view of the current world from day to day and from month to month. They should also read books of recent publication which reveal things as they were in the very recent past and which are practically unchanged in the present
- 3 Readings should reveal the historical background of the various realities. While one's interest is in the things with which he must currently deal, yet everything that exists is but the present stage in a long process of becoming and changing. One cannot understand the present link in the chain with any degree of certainty except is he sees its place in the long process. The historical view is, therefore, indispensable for rightly understinding the world of the present This criterion calls for an abun dance of biographical and historical readings which show the buckground of all of the sorts of things with which mankind is concerned. These historical readings should not be limited to the political and military exploits of nations. These latter are important things which should be known. But there are also countless other things the natures of which are to be made dear by viewing their genesis and historical development
- 4 The literary technique of all readings should provide for clearness depth and vividness of impression. They should therefore present things in their concrete aspects. The language should paint definite pictures of things. The readings should be as interesting as they can be made for the sake of vividness of impression. They should grip the reader and hold his attention for the sake of continuity and duration of the impressions. The echaracteristics are indispensable if the harvest of I nowledge is to be abund into
- 5 The readings should be of varied literary type. In one's readings as in one's meals one's appetite calls for variety. We have already indicated that there should be great variety of theme or substance. In evise there should be variety of form. The readings therefore should include travels, biographies short stories novels histories, letters, poems current news essays editionals special articles, speeches dramas debites expositions and the presentations of science and technology.

In the choice of readings content is the basic criterion. A proper content assured then one chooses all sorts of forms which can be serviceable. One vill choose the art forms that is to say literature in the narrower sense of the term or the more didactic forms according as they best serve his purpose. They are equally means to be used. They are not to be held separate one seen as a thing to be studied for its form the other to be read for their content. Primarily all of them are to be read for their content. If they cannot be justified upon this basis then usually in general education and for the general population they cannot be justified at all

6 It is not necessary for the reader to see the literary technique that has been employed to make the reading effective for its purpose. A book is like a field glass. It

is an instrument through which one views the world. One can use a field-glass for its proper purposes without knowing the technical theory that guided its construction. Neither does one need to know the biography of the instrument-maker nor the circumstances under which he worked, rightly to use the instrument. Readings therefore are to be used for the vision that they will give and need not be studied for literary technique or history. They are to be used only as the author intended namely, for reading

In order not to be misunderstood here perhaps we should say that there are a few persons who can sufficiently profit from a study of the literary technology These are first, the professional writers. Naturally they must know how literature is made. The amateur writers constitute a second group. The world cannot have too many of these provided they see their efforts as only And then there are those alertamateur performance minded high-grade intellects who are interested in the subtler and more intangible levels and aspects of reality where our finer types of literature find their place. For them the literary technology provides opportunity for a superior type of intellectual leisure occupation these three groups may well study literature for its form the rank and file of the population will learn all that it needs to know about the form in the process of using the literature After one has read a thousand poems one is likely to know what a poem is without having ever studied its technical structure. In the same way the average person can learn all that he needs to know about the nature of dramas short stories novels essays special articles etc through the process of using them

- 7 Readings will accord different degrees of attention to different things, because of differences in their values and in their degrees of difficulty. Much reading perhapmost will be for swittness of fleeting impressions. At the other extreme however, there will be a certain amount of slow careful reading in which one gives prolonged attention to the things which are presented.
- 8 Readings should give a true picture of reality This principle is generally accepted with reference to the presentations of newspapers and magazines in their news editorials and special articles. It is recognized in the case of books of travels history biography science politics economics technology and the like. It seems to be only in the case of the art forms, the æsthetic literature where the question arises Shall literature in the narrower sense of the term present the world truly? Or may it present it in any false and irresponsible way that pleases its fance? The answer to this question is implicit in certain of the foregoing criteria. Readings are to be chosen for the sake of that content which will provide a true and balanced and adequate view of the world as it is or as it was during its earlier historical stages. The pur pose of the readings is the presentation of truth principle applies equally to all of the forms of literature

Any such principle must be interpreted with common sense and in the light of the infinite complexity of things. Dreams and fancies fairs stories and verbal music myths and legends are realities of sorts, and are deeply

woven into human affairs. And then it is possible to present truth in varied garb, in type forms with fanciful imagery and in whimsical ways. One must not be too literal-minded in his interpretations of what is truth

- o Readings are not to be selected upon the basis of enjoyment alone Readings should be enjoyed or at least produce satisfactions of some sort or they will not accomplish their proper purpose. It does not follow, however, that all readings which are enjoyable are profitable and valuable for human uses. As a matter of fact man's native interests relate to things that are concrete simple. primitive, and immediate. He is not by nature interested in the things that are large remote, and intangible such as man has created or discovered in a state of civilization As a consequence, the readings of his greatest delight are those that deal with fighting with mating and with other simple primitive things He enjoys such readings greatly, but beyond a certain moderate amount they are not greatly profitable. It is readings which produce enjoyment of a rather milder character which are of the greater profit for him
- To Rendings should constitute an accending series from those that reveal the simple primitive, and immediate aspects of human life and affairs to those that reveal the complex the civilized the remote and the intangible. The little child will begin with the simple and he will climb the series of levels as a stair up to where dwells or should dwell the intellect of the mature civilized man

The foregoing series of criteria is perhaps not a complete list. But some such series is needed for the guidance of parents and teachers in setting up their expectations of the amount of reading to be covered and of its character. It shows how homes and schools are to be equipped with reading materials if the wider vision of things and affairs is to be developed and maintained. Such a program is possible only where there is a sufficiency of the right kinds of reading materials.

An education derived from the slow and laborious masters of a few textbooks of skeletonic information belongs to the past. The school of the future is to be a school of experience. It is to be a place where one learns to live rightly and abundantly by much practice in right and abundant living under the guidance of intelligent and skillful teachers. But such education at the school can be of only moderate result except as this kind of high grade living gets further practice in the home where after all each pupil spends far more time than in the school

In a system of education through vital experiences school and home must work in close cooperation each conditioning a portion of a total program. Only thirty hours per week of this program will be at school while most of the other one hundred thirty-eight hours per week will be at home.

In this joint program of experience guided by parents and teachers the reading of newspapers magazines, and books will constitute a fundamental portion. The fruits of it growing up slowly through the years, should be maturity of mind width of outlook, depth of understanding and soundness of judgment.

### EDUCATING CHILDREN

#### By EDITH P PARKER

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THE poet who said, "I am a part of all that I have met" suggested the crux of the problem of educating an individual. One's education is not a mere matter of schooling, but the result of the sum total of experiences, in school and out of it, which one has encountered. It follows that the process of educating children is one in which parents and teachers share responsibility, and that it is the duty of both to see clearly the common goals which they are striving to reach and the means each is employing in an effort to reach them

The commonly accepted, all inclusive goal of general education is that of making people as efficient as possible in the solution of the problems which confront them in everyday living. These problems have to do chiefly with (1) one's vocation, (2) one's avocations, (3) one's participation in affairs of the family, school, church, club, and other social institutions or organizations, and (4) one's part in affairs of the community, state, nation, and world

Further analysis has revealed that efficiency in coping with such problems seems to resolve itself into possession by the individual of such attributes as (1) health and health promoting habits, (2) command of fundamental tools of learning, (3) high ethical standards and the habit of acting in harmony with them, (4) esthetic appreciations, (5) such ability to use types of expression employed in the manual and fine arts as is consistent with one's native abilities and one's need for such skills in his vocational activities, and (6) perspective (the ability to bring to bear on the solution of problems all significant new points, differentiating major from minor aspects of a situation), together with those social and civic attitudes which can result only from such perspective fundamental requisites may be stated in various ways. but the point to be made is that, in essence, these qualifications are involved if one is to function most effectively vocationally, avocationally, socially, and in a civic way Accordingly the problem which confronts parents and teachers alike is that of providing those specific experiences which will contribute to the development of such attributes in the children whose lives they inevitably are influencing, either consciously or unconsciously, either conscientiously or without realization of their full responsibility

Intelligent parents who see just what schools with this cleur-cut view of the situation are trying to accomplish for their children, cannot fail to become conscious of cer tain means by which they may strengthen and supple ment the developments in their children which the school experiences are promoting. Such parents, moreover, can bring to bear sound judgments on the types of experiences which schools are providing for their children and can be a powerful influence in bringing about improvements in the school life as well as in the home life of these young folk. It should be, accordingly, a matter of concern to parents

no less than to teachers to know what trends are discernible in recent efforts to improve the school curriculum so that it will better contribute to the all important ends of general education. It is also important for both parents and teachers to be able to distinguish between sound trends and those which represent tangents of a faddist nature — wanderings from the direct course.

Sound curriculum making developments are concerned with (1) the analysis of experiences to discover which ones contribute most, at various levels in a child's development, to the attainment of the fundamental goals (2) the formulation of specific bodies of experience, which, in the light of such analysis, seem to be most valuable for this purpose, and (3) experimentation with the giving of these experiences, and analysis of results actually demonstrated

Procedure along these lines leads one to believe that there should be one body of experiences directed specifically toward the end of health and health promoting habits, another body designed especially to give initial command of the fundamental tools of learning a third definite body of experiences expressly for the purpose of developing ethical standards and habits, a fourth body of experiences which tend to develop esthetic appreciations, a fifth giving opportunities to develop skills in fine and manual arts, and as many specific bodies of experience designed to give viewpoints which constitute perspective out of which right social and civic attitudes grow as there are viewpoints to be developed

For two types of bodies of experience the school is par ticularly responsible — those through which command of the tools of learning is acquired, and those through which viewpoints requisite to sound perspective are developed. The very nature of the experiences needed in these two bodies makes it extremely difficult for them to be supplied except in an institution such as the school. This fact does not absolve the school from the responsibility of providing the other bodies of experience mentioned, but discernment of this difference is necessary if one is to secure proper balance in the school curriculum, and is to realize which types of school experiences parents can least effectively provide

Experiences which the school should provide as a means of promoting health include (r) physical examinations to discover individual needs, (2) carefully graded play and other physical activities appropriate at each level for health maintenance, (3) experiences designed to acquiring pupils with rules of health maintenance and to help them form habits of observing such rules. This block of experiences obviously should not be concentrated at one or two levels of training, but should be so distributed as to extend, duly or practically so, throughout the period of elementary and secondary education. It should be recognized as impossible, furthermore, for the schools to

take over the whole body of health experiences. The nucleus of such experiences can be provided at school but the school cannot control the body of out-of-school experiences which inevitably make for health maintenance or against it as the case may be

The block of organized experiences which the school should provide as a means of gaining command of fundamental tools of learning, as contristed with the health block should be highly concentrated Since the child needs these tools in order to have many of the other expemences he needs the great majority of activities in the primary grades should be designed with the specific purpose of helping the child gain the ability to read and write simple English and to use simple number facts After he has acquired this ability through concentrated experiences in the primary grades it will increase of course at each later level as he makes more and more use of it but at such higher levels such increase is the outgrowth of activities expressly designed for the most part for other major purposes rather than organized with the major aim of giving such command. There is an exception in the case of further specific training in mathematics. Moreover at the higher levels a child's command of reading may be extended by instruction in one or more toreign languages The experiences met in the primary grades in guining the ability to read write and use simple number facts are no longer of the dry dull type provided for this purpose in schools of the past are rich and varied and contribute to other ends the while they are contributing to the major one. Nevertheless however rich and varied they may be they fail to be acceptable as the most effective body of primary expenences if through them the child does not acquire the ability to read and write simple English and to use simple rumber facts Regardless of how 'pretty 'and interesting the work of primary grades may look it is not 'art' unless children in the course of it become possessed of this Concentration of much of the work on this specific goal is the one means by which the primary school can contribute most effectively to an individual's general education

The body of experiences which the school should provide to help develop ethical standards and the habit of acting in conformity with them differs murkedly from both of the other blocks described. It does not consist of experiences so grouped that a child meets them at a stated time each day such as is reserved for play activities nor are they experiences which should be concentrated in any one period of education At every level there are numerous tasks to perform responsibilities to assume group activaties in which one takes part. The school should provide in the performance of its teachers examples of ethical performance which children may well imitate, and should furnish assemisistence at every level that the children perform the activities involved in school conduct in ways which instill in him right ethical standards and habits. While constituting in the mind of the teacher then, a specific body of experiences with a specific purpose it is not one which the child will recognize as such As in the case of health experiences, the school can provide at best only a small part of the experiences of this type which are needed. The parent too is responsible for exemplification of ethical standards and insistence upon conformity with them in out-of-school activities

In order to develop esthetic appreciations which mean so much to an individual's avocational existence, the schools should provide, as has been stated earlier, a body of experiences which afford the child opportunities to become acquainted with examples of good art. literature and music. A given part of one's school time may to this end properly be devoted to the entertainn ent of the child in such a way as to create in him tastes for the higher types of entertainment in so far as such experiences can do this. This demands very careful selection of materials to be used in such entertainment and the avoidance of any diagnosis of those selections in a preachy moral tone which tends to cultivate inhibitions rather than desires These entertainment periods need not occur daily nor should they be concentrated in a given level of development Instead, they should be distributed at intervals throughout the school program — once a week for example They constitute nevertheless a specific body of experiences designed for the specific purpose of developing Again such performance on the esthetic appreciations part of the school merely insures that each child what ever his out-of-school experiences are will have had at least some opportunity to come in contact with such means of enjoyment The school cannot control his The parent should select enterentire entertainment trinment for the child with as much care as the school should exercise and with precisely the same objective in mind

The body of experiences the school should provide in order to give initial training in expression in manual and fine arts should be such as to afford an opportunity for children to discover their own aptitudes along these lines Initial training in such expression should not be given with the expectation of making out of each individual an artist a musician an author a carpenter, an interior decorator or a cook. Instead it is afforded merely as a means of helping individuals to whom some of these forms of expression appeal strongly to find themselves and as a means of developing appreciations of the skills involved in such expression. Unless the school consistently affords such opportunity many an individual may go on through life without having chanced ever to know what latent possibilities he possessed. Orienting individuals means for one thing, giving them enough contact with the variety of experiences which enter into living so that they know what there is from which they may choose So long as initial training in art literature music cooking sewing and the like is looked upon is a body of experiences designed to bring each of a given group of pupils to a given degree of skill in the types of expression involved wrong emphases will result, and the major purpose be defeated. To demand that a child learn to read write and use simple number facts with a given degree of ability is a very different matter from insisting that a child learn to draw sing cook play the pinno make furniture or weave rugs with a given degree of ability Insistence upon the latter has disgusted many parents and educators with this whole body of school experience But if these experiences are planned primarily as "finding", "orienting", "opportunity" experiences, they at once assume a definite value which cannot be overlooked in any soundly balanced curriculum

The body of experiences necessary for the development of those insights and viewpoints requisite to sound perspective and right social and civic attitudes which hinge thereon, has already been pointed out as one of the bodies for which the school is especially responsible. No one yet knows what proportion of time should be devoted to the getting of each of the bodies of experience already discussed, but it is clear that, since the responsibility for developing perspective falls so largely on the school, experiences provided with this goal as their major purpose should have a relatively large share of school time and emphasis

Analysis of the requisites of perspective reveals at once three fundamental types of insight (1) insight into the laws of nature, (2) insight into the nature, function, and development of nations and human institutions, and (3) insight into the relationships existing between man and natural resources into the present utilization by man of earth resources, and reasons for such utilization follows that there are three major bodies of experience which must be provided in order to develop these insights one dealing with the understandings which comprise the natural sciences, a second with the understandings which comprise the social sciences, and a third with the understandings which comprise the socio-natural science. geography Developing one of these viewpoints may be constitutes one thread in the cloth Not until one has many such threads of understanding about natural laws and weaves them into a whole does he have the viewpoint which the natural sciences can provide. Not until he has many such threads of understanding about the nature, function and development of nations and human institu tions and weaves them into a whole does he have the viewpoint which the social sciences can provide And not until he has many such threads of understanding about the present utilization by man of earth resources, and relationships involved therein, and weaves them into a whole does he have the viewpoint which the one socio natural science, geography, can provide

Some educators have gone astray, in attempting to determine experiences which should be selected for the purpose of developing perspective, in that they are trying to give two or more viewpoints with a single body of experiences consisting of so called integrated units To try to do so is like trying to use a given amount of cotton fiber in such a way as to make it, with a single treatment, into both mosquito netting and gingham Either might be made from it but if it is treated in one way it becomes mosquito netting, and not gingham, and if so treated that it becomes gingham, the product couldn't, by the wildest stretch of the imagination, be confused with mosquito netting Furthermore, the activity of weaving it into mosquito netting does not give one the insight into how to weave it into gingham Only through three groups of rationalized, carefully graded experiences, one in the natural sciences, one in the social sciences, and one in the socio-natural science can the elements of sound perspective be acquired

Finally it should be noted that much activity on the part of pupils may avail little. Activities are a means to an end, not ends in themselves. There is danger of too much "cardboard" and too little reasoning in so called pupil activities. No activity is worth more than the contribution it makes to the specific understandings, abilities and attitudes which help one to solve wisely the problems of every day living.

It goes without saving that books play an important part in our attempts to reach our educational goals. In schools of the past much effort was expended upon teaching children to read but too little opportunity was afforded them to use the valuable tool they had acquired Now, the purposes which reading can serve in building up certain of the various funds of experience which have been discussed have been analyzed carefully by teachers and school administrators, and criteria have been worked out for evaluating and selecting the reading material to be given to children in school. Of course, however parents share with the school the responsibility for providing children with reading material of the right kind.

In many cases parents are much less critical of the books which come into their children's hands than are the schools Often at home books are provided of the sensational and sentimental types which do much toward undoing what the school is attempting to do in the matter or developing appreciation of good literature Moreover, there has been a marked tendency to provide for children for recreational reading at home only story books It is difficult for some people to realize that children often find facts more entertaining than fiction Progressive schools realizing that to meet the interests of children, a wide range of reading materials should be provided, have established school libraries where children may come during free reading periods. Owing to the clever handling of reading materials in the primary grades, children usually bring to the intermediate grades a friendly feeling toward books as well as considerable skill in reading In the intermediate grades children's interests multiply rapidly The purposes of the school library are to foster the friendly attitude toward books, to provide a wide variety of good books which will give children an opportunity to pursue their expanding interests, and to broaden their experiences within any worth while field to which they have been attracted Perhaps one child may wish to find out more about certain stars which were mentioned in science class, another may wish to read of the life of some famous person of whom he has heard a third may wish to find out how he could make a telegraph set at home, a fourth may wish to find some new game to play at a party and a fifth may prefer to read a story Obviously a library will need a large number of volumes if it is to meet all such needs. In the home the need for providing a similar wide variety has often been difficult

The problem has been simplified of late by the appearance in the market of sets of children's reference bools, such as The New Wonder World. These books serve a real purpose in the educational scheme by providing within comparatively small compass a great range of subject matter suitable for unassigned reading. They may, if well used, be a helpful factor in "educating children"

# UNDERSTANDING AMERICA'S SCHOOLS

#### By WORTH McCLURE

Superintendent of Schools, Scattle, Washington

A MERICAN schools represent the unfolding ideals of a people From meager beginnings they have developed in answer to universal popular demand

In this respect American schools represent a sharp contrast with those of many countries where education has been imposed from above and controlled as to purpose by the national government. Witness the schools of pre-war Germany, of present-day France, of Soviet Russia, of Fascist Italy. American schools are essentially local community enterprises. Local communities control school policies, are jealous of this control, and are quick to resent any interference with it

This American desire of all the people for education has been at times unthinking, blind, and inarticulate, but its forward sweep, from the beginnings of the nation until the present, when approximately one out of every four persons in our population is revealed by statistical studies to be a student at an educational institution, is by no means uncertain or indefinite. It affords a basis for the statement sometimes heard that popular education is America's national religion.

In order to understand American education then, one must perforce keep its origin in mind — that it has not been planned by any individual or group of individuals, but that it represents the evolving aspirations and ideals of thousands of far-flung local communities

This evolutionary process has brought its liabilities. It is sometimes said, for example, that America has been in the past, and still is in some localities, satisfied with teachers whose professional equipment is pitifully inadequate, that America has at times borrowed educational devices from other countries regardless of their suitability for her needs, that American educational purposes and aims are still not clearly defined

These things are but evidences of developing ideals Unlike those of many countries, America's teachers are not employed by a national authority but literally by thousands of local school boards who are responsible only to local public opinion Unlike those of many countries. schools and courses of study are established and defined not by administrative fiat but by these same local bodies American educational purposes are not fixed by governmental decrees They do not include the development of a superior Kultur or the realization of a Five-I car-Plan They emerge rather as products of community discussion and study, of organized research by schools of education in great universities. They develop faster in some districts than in others Such is the way of democracy When we remember, however, that American schools are taking form and substance out of the consciousness of a far-flung population, the surprising things are the agreement of purpose which they do evince, the constructive genius that they do exhibit, as evidenced by the junior

high school and the jumor college, steps in a new concept of secondary education, the general consensus that they do evidence as to fundamental purpose

For there is general agreement as to fundamental purpose in American education. America's educational credo may be very simply stated, but its implications are many and far-reaching. Just as they have already developed, so are they capable of continual clarification as the intellectual and spiritual horizon of America is widened.

America believes, first, in individual opportunity—a chance for every child—Lincoln voiced this ideal "I hope the time will speedily come when my country shall guarantee to every child a fair chance for an unfettered start in the race of lite"

America believes, second in the responsibility of every citizen to his community, his state and country, and to society itself. In brief, America purposes that every child shall be assisted in his self-unfoldment — the development of his talents whether they be one, two, or five — but that he shall recognize his obligation to devote these talents, not merely to selfish interests but to the unselfish service of society

If American educational idealism has been expanding and developing, so have the scope of school programs and character of school activities been expanded and refined Not only the widening of ideals of service, but a great body of scientific research in the fields of human knowledge and in the psychology of learning have made this necessary To-day's school life, as a result, is strikingly different in many respects from that of a generation ago Such is the force of this condition that parents find serious difficulty in giving the help that they would like to give in the interests of their children's progress They find themselves utterly unable to visualize what goes on in the modern schoolroom in terms of what took place there in their own school-days and sometimes they ask, "What is this new-fangled idea of education anyhow?"

This is a thoroughly legitimate question. It is one that needs to be answered if American schools are to function as they must function that America may meet the challenges of this testing century for "government of, by, and for the people"

The fundamental aims of American education have been stated. In seeking these aims, forward-looking school systems are guided in the main by three important educational principles. These three principles are not difficult to understand, yet they explain much of the modern American school program.

Every child is different from every other child—different in physical, mental, and moral status. This is sometimes called the principle of individual differences.

- Not only is every child different from every other child, but every child differs from himself at various stages of his career. The babe is not a child and the child is not a miniature adult either physically or in any other respect. The mother of several stalwart sons now grown, recently related how she went in secret for weeks after the birth of her first born not even confiding her sorrow to her husband — because she was certain that her child was deformed His body was entirely too long, out of all proportion to the rest of him His legs were much too short To climax the whole tragic situation he was hopelessly bandy legged In short his physique was hornbly like that of the pictured dwarf in the story book This mother had not sensed the force of this second principle - which is that of growth How many parents and teachers make the same mistake at some later period in a child's development
- 3 The third principle has to do with the nature of education itself. Education is not something that the teacher does to the child. It is rather what the child does to himself—under the influence of teachers it is true, but also under the influence of parents and of companions. What he does to himself is conditioned by growth and by the discipline of new and varied experiences. Education thus becomes much more than a mere matter of schooling. The man who said, "Education is what you have left after you have forgotten what you have learned," sensed this. Education is the sum total of experience, and the total is not the same from day to day

The balance of this article will be concerned with pointing out as concretely as possible some ways in which these educational principles are applied by modern American schools

#### FINDING THE INDIVIDUAL CHILD

Schooling for all the children of all the people — all different each from the other — involves not only the provisions of many different types of schools. It involves also adjustments within each school for the sake of each child. Individualized teaching techniques whereby the needs of each child may be discovered and instruction provided at the point of difficulty are now employed in all forward looking schools. The good teachers of all time have generally endeavored to instruct pupils individually as far as possible, of course. Early American schools with some two hundred pupils per teacher used a form of individual instruction, but it was a form which wasted the time of many other pupils whilst one engaged the master's attention.

Scientific research in the psychology of learning, and extensive experimentation in teaching method, have made it possible for the modern teacher to find out the needs of individual pupils better, perhaps, than has ever been possible before. Teaching materials and textbooks have been prepared which facilitate individual progress of pupils. The practical result is teacher diagnosis of individual needs and teaching applied directly at the points of weakness.

Organization of content by the Dalton or "Contract" plan, the content "unit," the Winnetka individual progress plan, and various "supervised study" procedures are all aimed at securing a classroom situation in which the personal contact of the teacher with individual children is cultivated. The "unit of work" now so widely used, also seeks to encourage the creativeness of each pupil by the same means

#### NEW CLASSROOM LIFE FOR OLD

Individual teaching means a new kind of class room life. The net result of movements like those mentioned is to make inevitable the passing of the old style "recitation" as a standard procedure. All the devices mentioned produce a teaching situation which sometimes appears much more informal than that with which the present generation of adults was familiar in its own school days. It has been necessary to scrap much of the old formality in order to break up the mass and to reach each child. In such an informal situation there should be none the less of duty and discipline than in the old, but the aims of the intelligent teacher are self imposed duty and self discipline. These, of course, are not new. They have been the aims of the master teachers since schools began.

The new type of classroom procedure, it is freely admitted partakes of the same liabilities as the old

The teacher may set so much store by the efficacy of her teaching procedure that she entirely disregards her responsibility to find out how much of wholesome growth her charges have actually made. Just as we have the old formalist who requires the memorization of historic data without regard to the comprehension of historic movements or the building of ideals, so we have also the new formalist whose pupils produce clay vegetables, Indian villages, and picture-cutting books galore without regard to the understanding of human relationships and the modification of childish attitudes

The teacher may likewise fail utterly to reach individuals even though her classroom situation gives ample opportunity for doing so

A recent visit to a classroom in which the work had been completely informalized revealed many evidences of manual activity Indian tepees, primitive musical instruments, and numerous booklets bore eloquent testimony The pupils themselves appeared to be absorbed in pasting illustrations of the process of shoe manufacture in booklets which they had made Asked for the names of children who had given evidence of ability above average, the teacher hastened to say all were "just ordinary" The same reply was given in answer to questions as to reading interests of the pupils Further questioning elicited the disquieting information that there were no particularly interesting achievements of boys and girls even amongst that which was on display No pupil, it appeared, stood out among his fellows in creative ability One or two had particularly troublesome personality weaknesses which made group control difficult

In a room not far distant was another teacher with a group of equal size but slightly more mature. This room likewise evidenced the informal approach. The pupils were working in small groups, so absorbed they did not notice the newcomer. Inquiry by the visitor about in-

we'll become fishermen whose purpose in catching speckled mountain trout is to experience the joys of a laughing stream, the gaiety of the colored songsters and the beauty of a woodland scene

Membership Requirements — Thy rod, tackle, frying pan, and occasionally some grub to cook up

#### ANTIQUITY CLUB

Purpose — to foster an admiration and a love for the arts and crafts of our ancestors, to help instill a love of beautiful form and color, to teach respect for old-fashioned articles, to use leisure in the cultivation of a hobby

1ctivities — I Election of officers 2 Discussion of purposes and plans 3 Exhibits of and talks on objects brought from home 4 Visits to one or more exhibits in Seattle 5 Talks by well informed people about old furniture, clocks, books, glass-ware etc 6 Reports by individual pupils 7 Reproductions in miniature of simple, old-fishioned articles 8 Poems and stories about the articles studied 9 An exhibit or program to which parents are invited

Membership Requirements — open to girls of any grade who are genuinely interested and who earnestly desire to cooperate

#### CHESS CLUB

Purpose — to begin to learn a game which has been a delight to many great minds

Activities — solving chess problems, chess games between couples, learning pieces and positions, chess openings and endings (for beginners)

Membership Requirements — chess board and men (sets may be purchased for 50 cents at some department stores)

### THE FORESTERS' CLUB

Purpose — to observe trees in their natural surroundings, to be able to identify all common varieties by their leaves or wood, to create a lifelong interest in our most beautiful outdoor surroundings — trees, to enable each member to make such a leaf scrapbook that he will be proud to say, "This I have made"

Activities — Hikes and excursions to nearby wooded areas whenever the weather permits, the collection of autumn leaves in all their gorgeous colors the making of slide lantern pictures, the study of illustrated books. Awards decided upon by members of the club will be presented to those who can identify the greatest number of trees by their leaves.

Membership Requirements — A genuine interest in the outdoors with the will to spend time and effort studying trees, a scrapbook suitable for pasting and mounting leaves

#### **GUID ANCE**

It is fortunate for American education that the twofold ideal of exploration and guidance has come to have general acceptance in modern junior and senior high school organization but it is exceedingly unfortunate that this ideal has somehow come to be regarded as the exclusive property of the higher schools

There is needed a new vision of the elementary school Subject content and school activities must be consciously

treated as exploratory as well as informational Method must consciously seek avenues to pupil self-expression. Systematic personnel studies must supplement the teacher's understanding of individual pupil capacities. Curricula and promotional machinery must be made flexible enough to afford adjustment according to the needs of the child. The principal must regard himself as a lender of children as well as of teachers.

Every consideration demands that superior ability and the gifts of genius shall not be warped or blighted in this new elementary school. There must be a school in which the five-talent as well as the one-talent child shall be sought and ministered unto. For the five-talent child the aim must be to discover him early, to cultivate him wisely—to give him the same chance as his less gifted fellows to labor hard and to grow strong with a firm sense of his responsibility to serve society and the good of all

#### TRAINING IN SHARING RESPONSIBILITIES

If schools have ever assumed that doing what is right inevitably follows knowing what is right the modern schoolmaster makes no such assumption. He believes that fundamental virtues should be understood and accepted as ideals. He believes there should be assistance and instruction in applying general rules of conduct to many diverse situations. Above all, he believes in the practice principle as a means of crystallizing ideals into habits. Therefore, the modern school usually employs many student activities in addition to whatever is provided in the way of direct or indirect ethical instruction.

Truining in social responsibility begins early as evidenced by the following statement to parents of prospective kindergarten children

#### When I Go To Kindergarten

I keep on trying to learn all the good habits my father and mother teach me at home

I find a big pleasant room with tables and chairs and cupboards just made for me I learn to take care of my own things

I find flowers, goldfish, picture books, and blocks I learn to arrange flowers, watch the goldfish, build with the blocks, and take good care of them all

I find the teacher who makes me think of my mother She tells me stories of all the beautiful things I see and all my pets—Sometimes she sings the stories

She lets me tell her stories of my father and mother and their work. She likes to hear of good workers and wants me to be one. She says when I get big I can write these stories for my self.

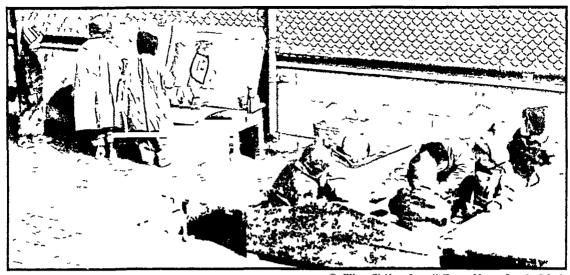
She shows me books with stories in them Some day I can read I know my name now It is on my cupboard and on all my things

In kindergarten there is a big cupboard with paper and scissors, pictures, paste, paint boxes—all the things I like—I learn to use all these tools and materials

My teacher tries to answer all my sensible questions She says that's the way to learn the beginnings of geography and history

I am learning how to get on with other boys and girls My teacher says we must "take turns" and "play fair"

We play games to make us strong and healthy Sometimes I am leader in the games Sometimes I have to do what Mary says when she is leader



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KINDURGARTEN ACTIVITIES ARE KEPT SIMPLE

On pleasant days we go on walks We always find something very nice to look at Sometimes we bring treasures back to the kindergarten We make books for ourselves We tell the story and our teacher writes it in the books

The mother who wept because her new born babe had not the physical proportions of the ten-year olds of the neighborhood had encountered a profound truth 

Every child is different at different stages of his maturity different in physique, in mental stature, in interests, and in emotional make up Instructional plans need to take this into account

From this point of view it is interesting to compare the scope of the kindergarten training just described with the following excerpt from a course of study in history for pupils of 0-12 years of age

#### General Aims of History

To assist the child to gain

An appreciation of his responsibility toward his community, his country, and other nations

A better understanding of the world's work - economic, social, and civic

A sympathy for other nations through an increased knowledge of their lives, customs, institutions, and problems

A tolerance of the institutions and belief of the people of other nations

A habit of investigating, thinking, and evaluating history facts which will result in open mindedness as the child develops in maturity

A growing curiosity in the fields of history and historical literature

An increasing appreciation of reading a variety of historical materials such as stories, poems, travel, science, industry, and biography

A growing tendency to base opinions in history on

ample and reliable facts

A sense of interdependence of people in the past and the present

An understanding and respect for the problems of other peoples, races, and nations as well as our own

The student-conducted school assembly and the studdent club are valuable devices for training in sharing responsibilities The following report from a principal illustrates its possibilities

"The school child is both an immediate citizen and a prospective citizen As an immediate citizen he is a member of his room group and his school, as a prospective citizen he is to be trained for the duties he is to discharge after he leaves the school and enters a larger community The school assembly may assist definitely in the training of the pupil, both as an immediate and as a prospective citizen Our assemblies are opened with a revised edition of the familiar school ritual We attempted to simplify this ritual in order to bring it more solidly into the consciousness of our pupils Our ritual follows

Pupil Leader Salute the flag! (We give the salute and follow with the pledge of allegiance)

Leader Why do we salute the flag?

Assembly Because we desire to honor it

Leader Why should we honor it?

Assembly Because it stands for liberty, justice, and equal opportunities in life for all those who live under its folds

Leader How can we best show our devotion to the flag?

Assembly By obeying the laws of our country

Leader Who are the enemies of the flag?

Assembly All persons who strike at our flag by war or who break the laws that have been made to keep our liberties

Leader What are our duties as citizens?

Assembly Tirst, always to defend the honor of our country, second, to obey the laws and see that others obey them, and third, always to remember that first of all we are American citizens, whose duty it is to stand by our country and keep its flag free from dishonor

"At every assembly, this ritual is followed by a class exercise If there happens to be a patriotic anniversary, that is the central theme, otherwise, the exercise is usually in the nature of a demonstration of some sort of school work We have found these class exercises to be intensely interesting to the school, even on occasions when it had seemed that the content might be uninteresting It has been explained to the pupils that these demonstrations are for the purpose of making them more intelligent citizens of the school through a wider acquaintance with its activities There is no doubt that this acquaintance increases their pride in their school

"On the behavior side — immediate citizenship — we find value in the assembly in two ways Continually, teachers have used participation in these exercises to help the individual pupil, through the content he delivers there, toward overcoming some narrowness of character he has displayed More than once the result has been

very marked "That part of the ritual which states that it is the duty of an American citizen to obey the laws and see that others obey them can be instantly driven home in concrete illustrations of constructive citizenship or the lack The laws to be obeyed include school regulations Seeing that others obey them includes a definite stand for the right, and exertion of personal influence on that side Experience strengthens the opinion that the atmosphere of our assemblies and lessons there given, help decidedly in elevating the citizenship standards of our school "

Boys' and Girls' Clubs in Seattle high schools are agencies for the conduct of the service activities of the schools All of the boys in a school are members of the Boys' Club and all of the girls are members of the Girls' Club

The Creed which follows was the work of one of the earlier Girls' Clubs Standards Committees

#### My Creed

I believe, as a High School girl of Seattle, I should be Toyous, courageous and courteous Truthful, considerate and just Loyal and sincere in friendship Too noble to speak ill of others Willing to forgive and forget Prompt and gracious in obedience Ready to do all possible service Quick to appreciate what is done for me Respectful to my elders True to the best that is within me that I may become a fine and worthy woman

Social Service is an activity which, without being spectacular, enters very largely into the program of all of the clubs

#### THE PARENTS' SHARE

Enough has been said to indicate the need for close understanding between parents and teachers Each contributes much to the education of every child and each has something to contribute to the other's problem

#### WHAT ABOUT HOME STUDY?

Parents are teachers but not in the same sense as those whose sphere is in the classroom Much discussion is had



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about the necessity for home study under modern school procedures. A study recently made by a teacher in a junior high school, in which supervised study is the standard, reverled the fact that 60 ninth grade students all found two daily free study periods in addition to their regular supervised study under the classroom teacher to be more or less inadequate.

At the same time all but one replied that they could study better at school than at home. The reasons as signed for this were of interest to parents as well as teachers

Dad runs the radio and my brother whistles

Our telephone rings all the time and I have to listen I don't really want to but I can't seem to help it

My sister is in Senior Glee and she sings every minute she's home

The folks right back of us have a dog with a wolf strain in him and he howls every night. I just can t concentrate

when he keeps it up

My mother helps my little brother every night with his arithmetic and she gets mad at him and talks loud and he gets mid too and says that they don't do it that way at his school but mama says principles never change, but I can't study when things are that way and I have to study in the same room because the light is better there

I can't get my homework because I have to practise

two hours every day

The radio bothers me I go upstairs to get away from it but I hear it up there too

They play cards lots at my house and I can't study when everyone is having a good time

I have two little brothers and they never want to go to bed nights

My aunt takes vocal lessons and she has to practise

every night

I can't help listening to the radio There's a good program every evening

My sister is always pounding the piano and the house

shakes when the car goes by

We have a radio and it's always going and I have to help with the dishes and it takes so long to get started and then it's too late!

It would seem that study at school is more productive and that continued improvement in school service should eventually make it unnecessary to do more at home than the child's interest suggests. In the meantime, parents will do well to provide the most suitable places possible for uninterrupted study under favorable conditions. Home reading should be encouraged at all times. The home would do well to emulate the school in providing as inviting a situation for reading and study as conditions will permit

#### PARENT EDUCATION

Enough has already been said, perhaps, to make it clear that school and home problems have much in common. Children must be considered as individuals, differing from others and from themselves by reason of growth changes and new experiences. It must be remembered that education is a continuous process and that it proceeds by the self-activity of the child. No teacher or parent activity is effective except in so far and only so far as it produces a response on the child's part.

An important corollary of this is the fact that many well-intentioned activities of others are productive of harmful results to childhood Many cases of misconduct are complicated by fears, hysteria, kleptomania, and perversions of various types Principals, teachers, and parents must always be on guard against hasty judgments They must not forget that the key to the situation is often to be found only after a careful study of the individual case Teachers need consciously to guard the nerves and emotions of children, and parents must be equally alert The emotional life of the timid child, for example, may be entirely warped by the blustering of an aggressive older brother or sister, the omnipresence of the well meaning mother or father who gives him no chance to do his own thinking or the fretful parent who says in his presence that she "just can't see what's the matter with Willie" On the other hand the sulky child who gets his own way by the simple method of pouting for a few hours, and the spirited youngster who gains permission to play with her mother's expensive chinaware by throwing herself into a tantrum, are learning the usefulness of sulkiness and tantrums Upon the home as well as upon the school must fall a portion of the responsibility for wholesome development of emotional control

How shall parents of this generation be prepared to discharge their share in this responsibility? One answer is the organization by the National Congress of Parents and Teachers and kindred organizations of cooperative study groups of parents for the study of child problems Modern school systems are encouraging this valuable activity In the system represented by the writer the number of these parental study groups has made phenom enal growth The school system in cooperation with the Parent-Teacher Associations has provided evening-school classes and afternoon lectures for study-group leaders Authentic literature is available at small cost from the National Congress of Parents and Teachers, from the Child Study Association of America and from almost any university maintaining a Teachers College or a School of **Education** 

The fact is that the school is only one segment, can hope to be only one segment, of the total cycle of the educational experience of the child. Any scheme of edu cation will fail that does not connect the school with the other segments, that does not take into account the other educative agencies in the child's life—the home first, the church, the streets and playfields, the theaters, the news stands, and all the rest, but the greatest of these is the home for it in some measure controls all the rest.

And so the city superintendent welcomes the great adult education movement that is represented by the organized parents who seek through cooperative study to become better equipped for the greatest job in the world—that of parenthood He welcomes it for he knows full well that the preparation of modern youth for effective living cannot be completely carried by the schools alone, however hard they may strive

Is it foolish to hope that the home and the school may together complete the cycle of wholesome experience for each child—that both may have the same objectives in the conservation of American ideals? Modern parents and teachers do not believe that it is

# THE EDUCATIONAL OUTLOOK IN CANADA

By G M WEIR

Minister of Education and Provincial Secretary, British Columbia, Canada

# I INTRODUCTORY STATEMENT THE PRESENT SITUATION

THE present article applies primarily to the educational situation in Canada where Public Education—unlike its sister, Salvation, which gave rise to separate school systems in four Canadian Provinces—is alleged to have become an extremely costly enterprise. There is a growing tendency for Canadians, especially if heavy taxpayers, to re-examine, not so much their educational objectives, which look very imposing on paper, but rather the results accruing to the community from mounting educational expenditures. Have our educative processes and programmes produced worthy results? Are Canadians reaping adequate dividends from their educational investments?

Expressed in quantitative terms, the answers to the above questions would probably be in the affirmative Particularly since the beginning of the present century our schools have been crowded to capacity buildings have been erected, new subjects have been added to the curricula, while it is frequently alleged that swarms of teachers "with thought-economizing instead of thought-stimulating instruments and processes" have added to the financial worries of the already over-The impact of numbers has also burdened taxpayer been felt in our universities which, especially since the close of the War, have become crowded with seekers either for culture and enlightenment or for the B A label which somehow is assumed to confer on its recipients certain economic and social advantages not otherwise attainable So popular has higher education become in Canada that a distinguished citizen of the Dominion once remarked that much subsequent trouble would be saved if every child at birth had "its appendix cut out, its tonsils removed, and was given a B A degree "

Thoughtful Canadians, however, do not view with alarm the growing popularity of higher or of any other branch of education Education, real education, is conceived as good, and evil cannot come of good They do, however, suspect the counterfeit coin of true education—the mere amassing of information, or the passing by instalments of artificial examination tests prescribed by educational institutions as the indispensable condition of obtaining a graduation diploma—rather than an education which demands of its recipients the ability to think with some degree of clarity and penetration

For reasons well known to students of the history of education, Canadians can scarcely boast of many original features in their provincial educational systems. The latter are largely hybrid mixtures of British, Prussian, and American elements. These systems are probably less unistocratic than the British models, in the sense of fostering standards conducive to social stratification, and perhaps less democratic than the typically American school

system with its premium, probably justifiable, on the development of mediocrity They undoubtedly possess some of the virtues and not a few of the inherent defects found in their prototypes Our provincial school systems are largely British in general outlook, Prussian until recent years in elementary school organization, largely American in practice, and Canadian in adaptation to meet changing national and local conditions greater influence than that of Professor John Dewey is discernible in our educational philosophy No psychologists have exerted a more profound influence in the direction of our psychological thinking than have Thorndike, Judd, and Terman, three American scientists, or Sandiford of Toronto University — the latter an Englishman who did distinguished post-graduate work at Colum-Egerton Ryerson, Superintendent of bia University Education in Ontario, 1846-1876, did much to mould our elementary school organization on Prussian models which, however, are gradually being discarded in the Elements of the Junior interests of greater flexibility High School, the Platoon School, as well as such modern tryouts as the Dalton and Winnetka plans, are becoming almost as common, if not commonplace, in Canada as in the United States Perhaps, however, our Canadian Universities, with their pass and honour courses and partial adoption of the seminar and small-group methods of instruction, reflect more of the English and Scottish influence than any other part of our educational organ-

Notwithstanding all these heterogeneous elements which have entered into the texture of our educational thinking and the composition of our school organization, the spirit and outlook of our provincial systems are distinctively British and democratic The content of our curricula, especially in the fields of literature, history, and social and political studies, has an overwhelmingly English and Canadian bias Canadians have decided that the high destiny of the Dominion can best be attained through perpetual partnership in the British Commonwealth of Nations and are moulding their educa Hence it is natural that tional systems accordingly Canada should continue to develop a type of nationhood along essentially Canadian as well as British lines into which, it is hoped, will also be incorporated many of the best elements of American civilization

The Dominion of Canada has already attained to the adult stage of nationhood Politically she is virtually as independent as the United States With regard to general level of culture she can justly claim full equality of status Commercially Canada is becoming no mean competitor Canadians trust that they are not mistaken in the belief, expressed by the late Sir Wilfrid Laurier, that the "Twentieth Century belongs to Canada" In the opinion of the writer, however, at least two pre-

requisites of an educational nature must first be achieved before Sir Wilfrid Laurier's dream can materialize namely more effective Adult Education, and Education for I endership

#### II ADULT EDUCATION

Professor Bagley's rather sweeping indictment (Twentysixth Year Book, Part II) of American civilization might, with certain modifications, easily be made applicable to our Canadian civilization as well Professor Bagley accuses the Americans of being a relatively lawless people, lacking in tolerance except that of serious crime, materialistic in outlook, lacking in creative talent, and as being the victims of a narrow nationalistic outlook especially with reference to Europe A corresponding indictment of Canadians would differ, if at all, in degree rather than in kind Several years ago in one Province the ratio of jail inmates to ordinary population was officially reported as 1 to 293 The fact that a considerable proportion of our prison population came from for eign countries does little to brighten the picture Canada should not feel complimented in attracting the criminal type If our list of crimes and public sins were multiplied by twelve — to place us on a population parity with the United States — it is probable that Canada would run her great neighbor a close race for the premier position in criminal honours!

It may be that Bagley's strictures apply primarily to conditions that should be considered inescapable adjuncts of nation building under relatively pioneer conditions This type of explanation, however, is more suggestive of rationalization and fatalistic philosophizing than of an honest appraisal of the real factors in the situation The home and church may not be doing their duty to the rising generation, but it seems equally obvious that our provincial systems of education as at present organized, have proved inadequate to meet the moral strain placed Their influences on character building upon them appear to have proved too evanescent to transfer to adult or, too frequently, even to adolescent life Can adult education make an effective contribution towards remedying, or greatly improving, what to many Canadians appears a deplorable national situation? It is a truism, but an important one, to state that in any system of education the quality of the teaching personnel is of paramount importance Unless people of scholarship, vision, and accomplishment — rather than conventionalminded pedagogic anæmics, so prone to become immersed in the benumbing practices of schoolroom routines — be attracted in greater numbers to the teaching profession, there appears little prospect of the attainment of satis factory results or even of an appreciable improvement over present conditions

Mr J M Keynes recently assured us that in the not distant future man will be required to work for his living no more than three or four hours a day Under such conditions, how shall the leisure objective of education be adequately realized? Unless adult education be effectively organized and intelligently directed, will this added leisure time become a national liability rather than an asset?

An encouraging sign of the times, however, is the increasing interest shown by adults not only in economic problems, but in Art, Music, the Drama, and the Social Sciences as well—Widespread unemployment conditions, prevalent in all civilized communities, have directed the attention of thinking people to the international ramifications of economic forces that no important community is able to escape—The human aspect of the problem, that of world neighborliness as opposed to militarism, has also come into a somewhat belated prominence—National self sufficiency, in a narrow economic sense, is coming to mean national isolation and stagnation—No nation can live by gold and high tariffs alone—Gradually the conviction is dawning among civilized peoples that international insecurity is at the heart of world wide economic trouble

The above may be suggestive of mere counsels of per fection, but, in the light of the evolution of a sane public opinion in all progressive communities, it is also suggestive of an important aspect of an educational programme for adults. In the opinion of the writer, adult education must stress such factors as the following if the next generation is to achieve progressively higher levels of attainment—if Canadians of to morrow are to "see life steadily and see it whole"

(a) Greater emphasis on the supreme importance of world neighborliness and interdependence, including the universality of ideals as opposed to petty nationalistic outlooks According to this view, militarism must first be abolished in a psychological sense, people must relatively to the settlement of international disputes think primarily in terms of peace rather than of war before actual disarmament can become a reality viously the public school, as at present organized and manned, with its immature teachers and undue emphasis on giving grades and passing examinations is hopelessly inadequate to carry out the above programme Lack of space prevents detailed discussion of the type of adult education that might succeed In all likelihood, consider able experimental work and research, involving the analysis of factual situations rather than the blind accept ance of mere opinions, will prove an indispensable factor in the solution of this universal problem

(b) Emphasis on social cooperation rather than on class or group domination. One of the adjuncts of the capitalistic system is the distinction, sometimes quite artificial, between employer and employee. In actual practice the effect of this distinction is sometimes more suggestive of economic serfdom than of uniform justice or the practical recognition of so called rights and privileges.

By way of illustration, the following case may be cited During the recent depression, Community A decided to relieve its unemployment situation by deducting 10 per cent from the salaries of teachers and other employees Employers of labor were left unscathed on the principle that, owing to economic conditions, they were already obliged to accept losses or reductions in revenue

The toleration of such practices is ample evidence that democracy's slogan, "equality of opportunity" is, in large measure, a pious platitude or mere ethical vacuity From the viewpoint of rights and obligations, no sound

system of social philosophy attaches any peculiar significance to the distinction between employer and employee All are citizens first, and employees or employers only secondarily, and it is as citizens that they are entitled to an equality of rights and privileges or of sacrifices in meeting community obligations. The ultimate authority in such cases is the real will of the people represented by constituted government, which has access to income tax information and hence is in a position to make a reasonable appraisal, on the basis of ability to pay, of the amount that each citizen, irrespective of whether he be an employer or employee, should contribute

It is obvious that in good times the business man is in a better position than the employee, such as the teacher, to share in the profits derived from mounting prices increased sales, and the general fruits of prosperity in seasons of prosperity there is no manifest tendency for the reactionary type of employer to advocate sharing profits with the teacher or proportionately increasing the salary of the latter It is apparently only when the pall of depression and unemployment settles down upon the community that the teacher or other employee is to be singled out for discriminatory treatment. Adult education must stress the principle that justice is not the interest of the stronger, that class or group discrimination is both undemocratic and unethical and that there is no more logical justification for differential (as between classes) economic conscription in times of depression than for discriminatory military conscription in time of war Many of the defenders of our present capitalistic system need a course in social ethics that will clarify the distinction between opportunism and the square deal social or economic system that tolerates the preying of one class upon another cannot hope indefinitely to survive the sinister forces of a certain brand of communism which seeks to substitute one injustice in our social system for another After all, it is quite as ethical as well as logical that the relatively small class of employers and capitalists should be sacrificed to the more numerous class of emplovees or wage-earners as that the converse should be Adult education must stress the distinction between economic aggrandizement and social justice uniformly applied to all citizens if class strife is to be avoided Furthermore, this education must be functional In other words, it must result in the emergence of desirable conduct in life situations if it is to be successful Cloudy theorizing or goody-goody exhortation will not solve the problem As Professor Kilpatrick has pointed out "It (honesty) must be lived in a situation which calls out the trait, gives it practice, and then by some sufficient satisfaction fixes the response in character" Adult education must in some way supply a school of practical citizenship in which theory and practice are harmoniously and vitally blended The Russian experiment is suggestive of processes which, however, would require thoroughgoing modification before being acceptable in an Anglo-Saxon democracy

(c) A third illustration, that of health service and education on a national scale must suffice to emphasize the crucial need for adult education. The results of a recent health survey made in Canada reveal the fact that on the evidence of approximately 1200 doctors well distributed

throughout the urban and rural sections of the country. over 62 per cent of the citizens of moderate means who need the services of the trained nurse are deprived of such services through inability to pay On the other hand, over forty per cent of the private-duty nurses are unable to obtain even intermittent employment, while the average annual earnings of the above type of nurse including an allowance for board and lodging while on duty, are only \$1 022 How shall the economic gap between the health needs of the community and the profiered services of the nurse and doctor be more effectively bridged? Many economic experts, who have given this problem serious study, recommend the adoption of state health insurance And yet any reference in many sections of Canada to state health insurance is almost certain to give rise to vituperative comment on the part of not a few physicians, politicians and a percentage of successful business men

The more extreme opponents of state health insurance in Canada are ever ready to invoke a number of absurd shibboleths relative to the alleged stigma of communism, professional freedom or suicide, molly coddling the people, and destroying scientific initiative and research. In the interval however, owing to the mounting costs of specialised medical services and hospitalization, the economic gap between the patient on the one hand and the physician and nurse on the other, is gradually being widened while hospitals continue to report mounting deficits Savings accounts often the earnings of a lifetime must be depleted if lives are to be saved. The modern community has outgrown the present antiquated system of supplying health services The issue has been forced through the mounting costs of medical specialisation. And vet certain reactionaries professional and lay, constitute themselves the uncompromising opponents of necessary social adjustment and reform The impact of adequately organized adult education, conducted on a comprehensive scale would undoubtedly sweep such reactionaries into the discard and usher in a new era in the distribution of scientific health services of which middle class Canadians stand in such dire need

#### III EDUCATION FOR LEADERSHIP

Adult education, however, cannot attain its highest success unless it be guided and inspired by competent leaders. Moreover the latter are needed in all departments of our national life. Shrewd observers have remarked that a common mistake made by democracies in raising their average standards of educational achievement has been to penalize the more gifted. Too much attention in a relative sense it is alleged has been paid to the driftwood to the neglect of the good human timber. "An anistocracy of brains", recently remarked a Canadian university president "co-existent with a democracy of educational endeavour is by no means an easy form of government, but it is sound for the newer countries and is not impossible of achievement."

The question of the factors that condition leadership arises here. In the selection and training of leaders what qualities or prerequisites should be kept in mind?

The following analysis of leadership, based on a study made by Dean Ira A McKay of McGill University and several hundred Canadian university students, may supply at least a partial answer

- (a) Personality—The sum total of the individual's physical, mental, and moral characteristics, plus their organization into a unity that conditions the total engaging effect of the individual upon his or her associates. This provisional definition emphasizes the aspect of appeal or magnetic influence, which is obviously indispensable in a successful leader.
- (b) Education Firstly, enough liberal education to enable the leader reasonably to appreciate all legitimate human interests, and, secondly, enough special education to give him or her a mastery over the techniques that apply to the particular branch of service involved. The mere mastery of techniques, however, on an insufficiently broad basis of general education was considered the negation of true specialisation and tended to develop the technician rather than the leader
- (c) Foresight to plan for the future and courage to carry on
- (d) Utterance or lucid and convincing expression by speech, pen, and personal example This factor also involves the quality of silence when advisable
  - (e) "The capacity to give and receive wise counsel from

- one's associates and colleagues and even from large assemblies and masses of men"
- (f) "The capacity to appoint and place competent and trustworthy lieutenants and subordinates, and to trust, direct, and encourage them when they are appointed"
- (g) Character, meaning here "A wholehearted devotion to the public service, and a fixed immovable determination to prefer always the public to private interests"
- (h) Intelligence—or "ability to learn" This factor involves abstract reasoning, social intelligence or tact in dealing with one's associates as well as with the public, and, thirdly, mechanical intelligence, if the occasion requires,—namely, the mastery of the techniques of one's calling

In conclusion it may be stated that, in the writer's opinion, the future effectiveness of Canadian education will depend not so much on the acquisition and use of more scientific techniques of teaching and study, important as the latter undoubtedly are, but rather on the selection and training of leaders imbued with the ideal of service. These leaders will possess the international outlook and will seek to inculcate ideals of world neigh borliness and economic interdependence. To their lot will also fall the supreme task of guiding and inspiring adult education along lines which will enable Canada to attain the high level of her destinies

# THE TRUE EDUCATION FOR AMERICAN CITIZENSHIP

By JAMES CARDINAL GIBBONS

THE education of youth is the engrossing topic of our times. The vital question of the day is, How shall we shelter the lambs?

I am persuaded that the popular errors now existing in reference to education spring from an incorrect notion of that term *To educate* means to bring out, to develop the intellectual, moral, and religious faculties of the soul. An education, therefore, that improves the mind and the memory, to the neglect of moral and religious training, is at best but an imperfect system. According to Webster's definition, to educate is "to instill into the mind principles of art, science, morals, religion, and behavior." "To educate," he says, "in the arts is important, in religion, indispensable."

It is, indeed, eminently useful that the intellect of our youth should be developed, and that they should be made familiar with those branches of knowledge which they are afterwards likely to pursue. They can then go forth into the world gifted with a well furnished mind and armed with a lever by which they may elevate themselves in the social scale and become valuable members of society. It is also most desirable that they should be made acquainted in the course of their studies with the history of our country, with the origin and principles of its government, and

with the eminent men who have served it by their statesmanship and defended it by their valor. This knowledge will instruct them in their civic duties and rights, and contribute to make them enlightened citizens and devoted patriots.

But it is not enough for children to have a secular training, they must also receive a religious education Indeed, religious knowledge is as far above human science as the soul is above the body, as heaven is above earth, as eternity is above time. The little child who is familiar with the Christian catechism is really more enlightened on truths that should come home to every rational mind than the most profound philosophers of pagan antiquity, or even than many of the so called philosophers of our own times. He has mastered the great problem of life He knows his origin, his sublime destiny, and the means of attaining it—a knowledge that no human science can impart without the light of Revelution.

God has given us a *heart* to be formed to virtue, as well as a *head* to be enlightened. By secular education we improve the mind, by religious training we direct the heart

It is not sufficient, therefore, to know how to read and write, to understand the rudiments of grammar and arith-

metic It does not suffice to know that two and two make four, we must practically learn also the great distance between time and eternity. The knowledge of bookkeeping is not sufficient, unless we are taught also how to balance our accounts daily between our conscience and our God. It will profit us little to understand all about the diurnal and annual motions of the earth, unless we add to this science some heavenly astronomy. We should know and feel that our future home is to be beyond the stars in heaven, and that, if we lead a virtuous life here, we shall "shine as stars for all eternity" (Dan vii 3)

We wish our children to receive an education that will make them not only learned but pious men. We want them to be not only polished members of society but also conscientious Christians. We desire for them a training that will form their heart as well as expand their mind. We wish them to be not only men of the world but, above all men of God.

A knowledge of history is most useful and important for the student. He should be acquainted with the lives of those illustrious heroes who founded empires, of those men of genius who enlightened the world by their wisdom and learning and embellished it by their works of art

But is it not more important to learn something of the King of kings, who created all these kingdoms, and by whom kings reign? Is it not more important to study that Uncreated Wisdom before whom all earthly wisdom is folly, and to admire the works of the Divine Artist who paints the lily and gilds the clouds?

Our vouth cherish the hope of becoming one day citizens of heaven as well as of this land. And is they cannot be good citizens of this country without studying and observing its laws, neither can they become citizens of heaven unless they know and practice the laws of God. Now it is only by a good religious education that we learn to know and to fulfill our duties toward our Creator.

The religious and secular education of our children cannot be divorced from each other without inflicting a fatal wound upon the soul. The usual consequence of such a separation is to paralyze the moral faculties and to foment a spirit of indifference in matters of faith. Education is to the soul what food is to the body. The milk with which the infant is nourished at its mother's breast, not only feeds its head, but permentes at the same time its heart and the other organs of the body. In like manner the intellectual and moral growth of our children should go hand in hand, otherwise their education is shallow and fragmentary, often proves a curse instead of a blessing.

Piety is not to be put on like a holiday dress to be worn on state occasions, but it is to be exhibited in our conduct at all times. Our youth must put in practice every day the Commandments of God as well as the rules of grammar and arithmetic. How can they familiarize themselves with these sacred duties if they are not daily inculcated?

Guizot, an eminent Protestant writer of France, expresses himself so clearly and forcibly on this point that I cannot forbear quoting his words "In order," he says, to make popular education truly good and socially useful, it must be fundamentally religious. It is necessary that national education should be given and received in

the midst of a religious atmosphere, and that religious impressions and religious observances should penetrate into all its parts. Religion is not a study or an exercise, to be restricted to a certain place or a certain hour, it is a faith and a law, which ought to be felt everywhere, and which, after this manner alone can exercise all its beneficial influence upon our mind and our life."

In this country the citizen bappily enjoys the largest liberty. But the wider the liberty, the more efficient should be the safeguards to prevent it from being abused and degenerating into license. The ship that is destined to sail on a rough sea and before strong winds should be well ballasted. To keep the social planet within its proper orbit, the centripetal force of religion should counterbalance the centrifugal motion of free thought. The only effectual way to preserve the blessings of civil freedom within legitimate bounds is to inculcate in the mind of youth while at school the virtues of truth, justice, honesty, temperance, self-denial, and those other fundamental duties comprised in the Christian code of morals

I am not unmindful of the blessed influence of a home education, and especially of a mother's tutelage. As she is her child's first instructor, her lessons are the most deep and lasting. The intimate knowledge she has acquired of her child's character by constant intercourse, the tender love subsisting between them, and the unbounded confidence placed in her by her pupil impart to her instructions a force and conviction which no other teacher can hope to win

The education of a child must begin at its mother's knee. The mind of a child, like softened way receives with ease the first impressions, which are always the deepest and the most enduring. A child is susceptible of instruction much earlier in life than parents generally imagine. Mothers should watch with a jealous eye the first unfolding of the infant mind, and pour into it the seed of heavenly knowledge.

The more confidence a child has in his preceptor, the more he will advance in learning. Now in whom does a child confide more implicitly than in his mother? In all dangers he will fly to her, as to an ark of safety, and will place the utmost reliance in what she says. Mothers should not lose the golden opportunity of instructing their children in faith and morals, while their hearts are open to receive their every word.

Let us not forget that we are training citizens, and that our education has this throughout as one of its highest aims "God give us men, true, Christian men," must ever be the prayer of one who loves his country and her political institutions and this merit I may honestly claim My aim has ever been to make those over whom I exerted any influence not only more upright Christians but also more loyal citizens for the most faithful Christian makes the best citizen I consider the Republic of the United States one of the most precious heirlooms ever bestowed on mankind down the ages, and that it is the duty and should be the delight of every citizen to strengthen and perpetuate our government by the observance of its laws and by the integrity of his private life "Righteousness," says the Book of Proverbs, "evalteth a nation, but sin is a reproach to the people"

# SOME PHASES OF THE RELATION OF THE COL-LEGE GIRL TO HER FUTURE VOCATION

#### BY MARY EMMA WOOLLEY

I ormer President of Mount Holyoke College and of the American Association of University Women

WHYT should be the relation of the college girl to her future vocation? This is a question often asked, not only by the girl—perhaps even more frequently by her parents and teachers. The question indicates the long way traveled since women began to think of college training as a possibility for them as well as for their brothers. At that time the girl who entered upon a "career" was the rare exception, to day, in hundreds of American homes, the vocation of the daughter is regarded almost, if not quite, as seriously as that of the son

In discussing the relation of the college girl to her future work, three classes of students must be considered—first, the girl who expects to enter upon a vocation and knows rather definitely what it will be, second, the girl who looks forward to some vocation, but does not know what, third, the girl who has no expectation of "doing anything," in the common acceptance of that expression

The first girl has the advantage of a definite goal, she knows in what direction she is going, or wishes to go, and is generally studious, making good use of her opportunities, since she has the inspiration of a purpose. Her dangers are narrowness, over specialization, if she is in a college where that is possible, and a too utilitarian outlook, leading her to elect the courses which will play directly into her future work and to value the college course simply as a means to that end

The second type of girl, the one who expects to "do something" but does not know what — and this girl, in most colleges, represents the largest number — has to meet a different kind of temptation the temptation to lack of definiteness in her general course and of coherence in her elections, a tendency to scatter her energies, since one thing may be as useful as another in preparation for that indefinite "something" which the future, presum ably, has in store for her Diffuseness instead of narrowness, a little of everything instead of over specialization in one thing — these are the pitfalls against which she must be on her guard

Perhaps the chief danger confronting the third type of girl is the danger of losing sight of the real object of a college course — that is, the preparation for service, in the deepest and best sense of the word. No girl has a right to take the college opportunity and squander it for her own selfish pleasure. The wise girl, although the future may seem to hold no need of a paid vocation, will lay the foundations for a definite calling as earnestly as the girl who knows that the responsibility for her future rests largely upon her own shoulders. An intelligent American woman has no right to assume, whatever the privileges that position and wealth confer upon her, that she has no

responsibility for service and therefore no concern as to the preparation which shall best fit her for that service

To each girl definite advice might be given as to the best course for her to pursue in the light -- so far as she has light — of her future vocation, but there are certain great, underlying principles which apply equally to every girl, and apply not only to her work but also to her life The girl who is so fortunate as to have the opportunity of a liberal education utterly fails to improve that opportunity unless she gains from her college course two results, efficiency and vision In all vocations, paid and unpaid, industrial and professional, the work of the hands and the work of the head — the call of the day is for greater Superficiality is the bane of American life The passion to attain results - position, fame, wealth, even culture - without painstaking industry, the value set upon the short cut to success, the lack of pride in work worthily done, the loss of interest in the achievement itself, irrespective of compensation or recognition against this "drift" the college must take its stand

The first essential to efficiency in any vocation is that which is essential to the stability of a building - namely, a good foundation The required work in the curriculum often seems to a student non essential to the subject in which she wishes to specialize, a waste of time, something to be finished and put one side as quickly as possible, that she may be free to follow her special interests. In her impatience she forgets or fails to realize that the reason for the requirement is the experience of generations of scholars that certain studies make good foundation material The man about to build a house would be thought insane if he insisted that bricks, stone, and concrete should be discarded and clapboards substituted for the foundations, because, forsooth, the house itself was to be clapboarded and the roof shingled, or should demand that the foundations be omitted, that the house might go up the more quickly The result would be a shack for fair weather, not a house to stand the strain and stress of all seasons

In the laying of foundations, workmanship as well as material must be taken into consideration. The best quality of bricks may be so carelessly laid that the foundation is not only an offense to the eye but also a menace to the structure. Many a college graduate would give years of his later life if he could have once more the four of his undergraduate course, to live them more earnestly and to do his work more thoroughly. Would that the advice given to Timothy were taken to heart by every undergraduate, "Study to show thyself approved unto God, a workman that needeth not to be ashamed"!

What does the workmanship of which one needeth not

to be ashamed imply? First, thoroughness, something more than the preparation which will insure a creditable appearance in the classroom or passing marks in examinations. It means a habit which will be content with nothing less than mastery of the subject, not exhaustive knowledge—that does not come within the province of the undergraduate—but what may be called a mental grip. To gain this power of gripping a subject, this habit of absolute accuracy, of exactness, of retention of the essentials, is more valuable as preparation for whatever one may plan to do than any amount of technical training without it. And in addition, it is invaluable for the unexpected demands of life—those demands which come unplanned and unprepared for

There is a peculiarly close relation between the acquirement of this power and that part of the curriculum commonly regarded as difficult Difficult courses, the difficult places in a course, will be welcomed, not avoided, by the student who wishes her college training really to be a training, not only for her future vocation, but for her life Grappling with difficulties develops mental and moral muscle the kind of muscle that the modern world needs for the solving of its problems Flabby mental muscles are a handicap in any vocation, and it is only by strenuous exercise that they can be strengthened The easily learned lesson, the course that requires no effort, that encourages mental loafing, are not only no preparation for the world's work — they are actually a hindrance, since they form bad habits When a course is "dead easy," beware of it! The present-day girl who wishes to become an efficient woman studies her physical self to see what needs to be corrected and strengthened, and adapts her physical exercises to that end There is equal reason why she should study her mental self and see what it needs for its best development

The attempt to master the difficult gives training in concentration, most valuable of all mental habits. The student who can shut out the world and be conscious only of the problem to be solved, the thought to be interpreted or expressed, has learned one of the inner secrets of success in whatever she may undertake

How far should the college of liberal arts make it possible for the undergraduate to prepare herself directly and definitely for her future vocation. This is a question calling forth such widely divergent views that one approaches it with a sympathetic understanding of the negro preacher who, when asked by a white neighbor, concerned for the ethics of his colored brethren, whether he would

not preach on the Ten Commandments instead of choosing abstruse points of doctrine, answered firmly, "No, sah! Dat would breed a coolness in de congregation"

The value of thorough vocational training can hardly be overestimated. Whatever the calling, the more thorough the technical knowledge, the greater the chances of success. The debatable question is, how far is it wise for the college of liberal arts to attempt to meet this need and for the student who has the opportunity of a liberal education to give it the vocational bias. In this, as in most discussions, it is possible to take an extreme position on either side. The fact that a girl looks forward to a certain vocation and plans her course with reference to it gives definiteness and earnestness to her work. And for the girl who has no particular vocation in view, but who wishes to fit herself for some part in this work-a day world, the thoughtful shaping of her course, that it may give her a certain mastery in some direction, is invaluable

The solution of the veved problem is to be found in general principles rather than in the laying down of fixed rules. The mission of the college of liberal arts in common with the vocational school is to develop efficiency, the ability to do and to do well. But that is only half its mission—it is also to give vision. To minimize this opportunity in order to offer strictly vocational courses is a mistake from the point of view of the vocation as well as of life in its larger meaning.

"The offer of the college" President Hyde defined in part as follows "To be at home in all lands and all ages, to count Nature a familiar acquaintance and Art an intimate friend, to gain a standard for the appreciation of other men's work and the criticism of your own, to carry the keys of the world's library in your pocket, and feel its resources behind you in whitever task you undertake"

In other words, a liberal education gives the power of vision into the past and into other sorts and conditions of life, into the world of Nature and into the world of Art, into the best of what men have thought and said and done, and left as an inspiration for those who come after them

To know how to do and to do well is essential in every vocation, but in every vocation what the worker is counts as truly as what he is able to do. A liberal education rightly appreciated and improved makes a bigger human being, enlarges the resources, broadens the outlook, deepens the sympathies, quickens the senses of responsibility. To the question, "How can I be best fitted to do my own work?" it adds the larger question, "How can I be best fitted to do work for others?"

# Study Outlines for Units of Work

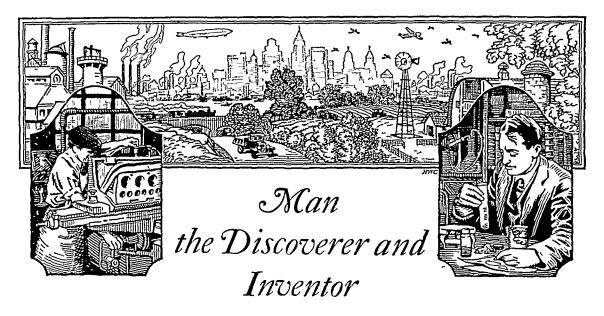
# Prepared at Teachers College, Columbia University By EDNA REED, A B

# UNDER DIRECTION OF DR J R McGAUGHY

These 72 suggested outlines, including 385 units of work and more than 750 problems for teachers and pupils and suggestions for classroom activities, cover all ages of children, pre-school, primary, elementary, and upper grades. These outlines bring together related materials from different fields of knowledge, making them indispensable to teachers and pupils in the development and preparation of units of work required by the modern methods of teaching, as outlined in present-day Courses of Study. They will also be very valuable to parents in the effective guidance of home study.

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Theme — How man's curiosity has led to an ever-widening knowledge, to a better understanding of the life and things about him, and to better and happier ways of living with other people

# Problems for Teacher

- I How man's discoveries throughout history have influenced his living
- II The contribution of the discoveries of the past as they are woven into our present civilization
- III The constant and ever-growing spirit of discovery of our own time

# Approach

Teacher reads "The Dream Ship's Treasure," THE NEW WONDER WORLD, Vol IV, Pages 188-195

# Questions and Discussion

- I Why do you suppose those young men were willing to go on such a trip?
- 2 Do you know of other expeditions similar to this?
- 3 Discuss Byrd's expeditions to the Antarctic, Livingstone in Africa, Peary at the North Pole, and other exploration
- 4 Discuss how man's curiosity has led to almost every important discovery
  - (a) What examples can you give that show that a "burning curiosity" on the part of someone has been of lasting benefit to mankind?

The early explorers venturing across the "Sea of Darkness"

Daniel Boone going through the Cumberland Gap

Lindbergh flying the Atlantic

Monsieur and Madame Curie's discovery of radium

Galileo's insistence that the earth moves

(The teacher brings out the fact that this curiosity is not simply the desire to know, but often takes the form of missionary zeal like that of David Livingstone, or the desire to benefit mankind as in the case of the Curies, or the practical solution of a problem as told in "Battling the Canyon" (The New Wonder World, Vol IV, Pages 79–84, 183–187, Vol II, Pages 160–161)

Children volunteer to tell the class at the next class period the following stories from The New Wonder World, Volume Four

The Story of Marco Polo Captain Scott's Expedition The Seven Devils of Mount Logan David Livingstone Ur, the City that Saw the Flood

## Application to Child's Experience

- I What have you discovered for yourself? A short discussion
- 2 Try making a list of things that you have found out for yourself to tell about in class during our next lesson
- 3 Look in newspapers and magazines for pictures and accounts of exploration and discoveries both old and recent

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## Children tell stories they have prepared

I Discussion and questions, preferably those brought out by class

**Discussion** of clippings and pictures brought to class by children (The teacher should have some ready)

Plans for a bulletin board of Exploration and Discovery

Discussion of discoveries made by children

Plans for a chart, Discoveries of Our Fifth Grade, to grow as unit progresses

Example Mary B has found a mole's nest on her front lawn

John L has discovered that when hiking a raincoat is not so heavy if it is tied around one's waist when not in use

Bob E and Billy S have discovered a cave in the rocks in Brandywine Park

# Plans for an exploring trip to be taken by class

(This trip should be an actual excursion with the definite purpose of each child discovering at least one thing he doesn't know about, or is anxious to find out)

# Suggestions

- I A trip to the park, meadow, or woods to discover something about birds, animals, insects, flowers, trees, streams, etc
- 2 A trip to a shipyard, factory, telephone office
- 3 A trip to the beach
- 4 A trip through the town or city
- 5 A trip to a museum, library, etc

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#### The Excursion

IV

Discussion of discoveries made by children

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facing

Selection of the most interesting for chart

A Papuan Tree House

An Egyptian Tomb Relief

Indian War Dance, and a Warrior's Weapons and Wardrobe (color)

Example John G discovered that the buds of laurel stay on the branches all winter
Mary P found many evidences of fungus growing on spots on living trees
Hugh M discovered a small stream back of the school cabin He is sure that
it is new and that there must be a spring somewhere near

(If time permits, the class, or a group from the class, might make a booklet telling about the discoveries they ha e made)

# Development of the Topic

#### UNIT I - Primitive Man

Teacher tells children the story of how the Phænicians discovered a tiny drop of fluid in the mure's shell that made a dyestuff so precious that only kings could wear robes of that color, royal purple, and how, ever since, man has experimented and tried to discover secrets of making different colors, and how, during the World War, American chemists worked for days and days to make formulas for dyes, because German chemists knew most of the secrets of fast colors. She points out that many things we have in our lives to-day were discovered in ancient, even prehistoric times. With the help of the children she lists on the blackboard customs, ideas, mechanical things, etc, that might have started when history began

Problem What discoveries were made by early and primitive man — prehistoric to the Phanicians?

#### Page References - THE NEW WONDER WORLD

Vol I, Pages 289-317 Vol V, Pages 137-141, 235-237, 318-320 Vol II, Pages 1-4 Vol VII, Pages 1-12 Vol VII, Pages 217-222, 366-367, 375-378

#### Picture References - THE NEW WONDER WORLD

#### UNIT I

Volume I	PAGE
American Antiquities (color)  Artist Cave Men and their Drawings The Valley of the Tombs of Kings	295, 298 295, 298 302
Volume II	
The Labor Panel in the Mural Decoration, Library of Congress Tools of the Rough Stone Age Tools of the Smooth Stone Age Weapons of the Iron Age	1 2 3 4
Volume IV	
A Skin Tent Used by Hungarian Herdsmen A Navajo Hut A Mexican Hut of the Present Day The Square, the Triangle, and the Arch An Irrigation Wheel	218 219 220 221 366
Volume V	
Indian Snowshoe Dance Papuan Fire Makers A Village Built over the Water, New Guinea, and an Igorrote Farm in Luzon, Philippine Islands	130 133 137

# Volume VII

			PAG	Œ
Col	Egyptian Obelisk imns from the Karnak Temple of Amen ptian Hieroglyphics, Babylonian Cuneiform Writing			4 6 11
	SUBJECT 1	TAIN	TER	
1	Use of tools, weapons, and utensils		(c) Blowing on reeds	
2	Use of fire		(d) Use of human voice	
3	Cooking of food		(e) Use of cymbals, lyre, flute, ar	ıd
4	Taming of animals		harp	_
5	Making tents from animal skins	13	Use of vegetable gum and soap for in	
6	Tilling the soil to produce food		papyrus for paper, and clay tablets for writing	Ui
7	Using better materials for homes	ΤÆ	Use of writing	
•	(a) Placing them in locations for se-	-4	(a) Picture drawing	
	curing food and protection		(b) Hierogly phics	
8	Use of irrigation ditches and canals		(c) Cuneiform	
9	Use of rafts, logs, boats, bridges, and		(d) Alphabet	,
	roads	_	How to preserve the bodies of the dea	aa
10	Weaving of cloth — wool and silk  (a) Use of dyes	16	How to carve from stone and wood	
ΙΙ	TT 6 1	17	Value of tribal life	
	(a) Signs, symbols, sound	18	Value of barter and trade (a) Division of labor	
12	How to make music or rhythm	10	Value of code of laws	
	<ul><li>(a) Clapping</li><li>(b) Beating on hollow logs (drum)</li></ul>		Value of training of an army	
	PROBLEMS I	FOR	STUDY	
I	How do we know that primitive man made disc	coveri	nes?	
2	$\omega$			
3	Of what value to present civilization is the fact if			
4	Why was man's discovery that he could travel of			
5	What changes have come about in the United States because of the discovery by the Egyptians that land can be artificially watered?			
6	Which of the discoveries of primitive man have and living?	been	the greatest contribution to man's learning	ng
SUGGESTED ACTIVITIES				
I	The second secon	lls th	ne following stories to the class from Ti	ΞE
	NEW WONDER WORLD, Volume Five		PA	
	How They Got Fire at Puget Sound		112-1	13
	Indian Myths - Introduction of Wear	ons		19
	How Man Got Fire		130-1, Cooled Food	
	How the Polynesians Learned the Secr	et of	Cooked Food 132-1	54

- 2 Write original stories that might account for the discovery of one of the following
  - (a) Use of fire
  - (b) Use of a log to float on water
  - (c) That ores if smelted will make metals
  - (d) That certain animals can be domesticated
  - (e) That cooked food tastes better than raw food
  - (f) That men can communicate with one another
  - (g) Other subjects of your own choosing
- 3 Dramatize some of the discoveries of early man
- 4 Make fire in the primitive manner
- 5 Plan a dance to show how primitive man discovered and developed rhythm
  - (a) Use guttural sounds, clapping, yelling, shouting, jumping, the drum, and cymbals
- 6 Make a stylus, some imitation papyrus, a flat reed pen, and a clay tablet
  - (a) Write a story in sign language on the papyrus and one on the clay tablet
  - (b) Draw pictures of the animals that you see about you, as the cave man would have drawn them
  - (c) Draw pictures of activities you see about you that will tell the story of everyday life in your community
- 7 Dramatize activities of primitive man, using only sign language and guttural sounds
  Have your classmates interpret Do the same for an activity of your everyday life
- 8 Write a code of laws that would be applicable to primitive man
- 9 Divide your class into tribes Give each tribe a name from the life around you, as primitive man did Let each member of a tribe make one of the following
  - (a) A cooking utensil of stone or clay
  - (b) A vase of clay
  - (c) A stone or flint weapon or tool
  - (d) A metal weapon or tool
  - (e) A dress of skins
  - (f) Sandals
  - (g) A hollowed-out log or raft or boat
  - (h) A metal ornament
  - (1) A stylus, or reed pen, or 1nk
  - (1) A clay tablet for writing
  - (k) A piece of woven woolen or silk cloth
  - (1) Some dyestuff from wild berries
- 10 Have a council meeting in which you barter or exchange your articles, so that each tribe gets the things it needs
- On a map of the world, color the regions where relics of primitive man have been found Indicate the names of each civilization and the place names connected with them, such as Nile River, Tigris River, Egypt, Mexico, etc
- 12 For a backward view of the whole unit, do some of the following
  - (a) Have a discussion in which you decide how primitive man's discoveries influenced his civilization as it developed
  - (b) Have a discussion in which you decide how primitive man's discoveries influenced our life to-day

- (c) Make a series of pictures showing one of the following
  - I Development of the idea of homes, from caves to brick buildings
  - 2 Development of primitive agriculture
  - 3 Development of primitive warfare
  - 4 Development of language, both oral and written, of the primitive man
  - 5 Development of the idea of government
- (d) A larger undertaking would be to build a primitive community in your school-room or on your school grounds and live for a week like primitive man

(The above problems and activities are suggestive only It is desirable that a teacher follow children's questions, problems, and suggestive activities, rather than a formal outline)

#### UNIT II - Ancient Man

Be sure to keep your bulletin board and chart of Fifth Grade Discoveries up to date

Teacher calls attention to the fact that the discoveries of primitive man were made in his own community, and usually by accident or chance—It is true that there were roads leading out of Babylon, and some trade was carried on by the Egyptians and Phænicians, but it was not until these Phænicians ventured out into the open sea that geographical discoveries began and the area of the known world broadened—The Phænicians had good boats, made from the cedars of Lebanon, and good harbors—They found plenty of fish in the sea—First they went fishing, then trading, and finally conquering—Following them came the Persians, Greeks, and Romans, each adding more and more to the world's knowledge and broadening more and more the geographical concept of the western world

Problem How did the ancient civilizations continue to develop and add to man's knowledge through exploration, discovery, and invention?

#### Page References-THE NEW WONDER WORLD

Vol I, Pages 4, 41-42, 56, 60, 259-262, 263, 265, 306, 310 Vol II, Page 35 Vol IV, Pages 223-227, 260, 293-295, 375-377 Vol V, Pages 238-243, 276, 321-329 Vol VII, Pages 13-51

Picture References - THE NEW WONDER WORLD

#### UNIT II

#### Volume IV

	PAGE
The Story of the Column	225
Roman Vault Construction (diagram)	229
Ruins of the Claudian Aqueduct	375
Roman Aqueduct of Trajan's Time	376

# Volume V

The Parthenon, a Restoration (color)	facing 1
Horsemen, Parthenon Frieze, Athens	32I
The Arch of Constantine	328

#### SUBJECT MATTER

- I The Phænicians explore the "Pillars of Hercules"
  - (A) The Britons discover the value of tin
    - 1 Opening up of mines in England

- II The Phænicians found trading posts and a colony along the northern shores of Africa
  (A) Reach as far south as Liberia
- III The Phoenicians invent the alphabet
- IV The coming of the Greeks
  - (A) Expansion into the south from the banks of the Danube
  - (B) Adoption of the Ægean customs
  - (C) Conquest of the Ægeans and occupation of the peninsula
    - 1 Adding of Greece to the map
  - (D) Discoveries and inventions of the Greeks
    - I Use of wax tablets for writing
    - 2 Value of education
    - 3 Value of democratic government
      - (a) Solon's code of law
    - 4 Ideas in science, art, music, and sculpture
- V Contribution of the Greeks to the science of the world
  - (A) Thales

(E) Hippocrates

(B) Democritus

(F) Aristotle

(C) Euclid

(G) Archimede

- (D) Hipparchus
- VI Contributions of the Greeks to the arts
  - (A) How to use music and the theater as entertainment
  - (B) Use of relief in sculpture and decoration
  - (C) Use of columns, friezes, and pediment for strength and decoration on buildings
- VII The coming of the Romans
  - (A) Exploration and conquest of the European continent
    - I From the Straits of Messina to the Alps
    - 2 Italy, Spain, Northern Africa, and Islands of the Mediterranean
    - 3 Gaul or France
    - 4 England
  - (B) Discovery and invention of new methods and weapons of warfare and protection
  - (C) Contribution of the Romans to man's knowledge of building
    - I Use of the arch and dome for greater height, space, and light
    - 2 Use of pipe organ
    - 3 Use of baths
      - (a) Heating systems
    - 4 Use of stone to build bridges with supporting arches
    - 5 Use of aqueducts and cisterns to supply water
      - (a) How to boil and filter water
    - 6 How to build durable roads
  - (D) Conquest of the Romans by the Barbarians

#### PROBLEMS FOR STUDY

- I What is the significance of the fact that the Phanicians ventured through the Pillars of Hercules?
- 2 Why did the Phænicians feel the need of an alphabet?
- 3 Can you account for the fact that most of the early scientific discoveries were made by Greeks?
- 4 Why do we find Greece contributing ideas for man's pleasure and enjoyment?
- 5 Why were Rome's greatest contributions in the fields of warfare government, and building?
- 6 What influence of these ancient civilizations do we find in our present civilization?

#### SUGGESTED ACTIVITIES

- I On an outline map of the world show Greece, Rome, the Alps, and the countries of the Mediterranean explored by the Phœnicians
- 2 Make a gallery of great discoverers of Greece and Rome Discuss with the class whom to put into the gallery and why
- 3 Study the pictures of Greek sculpture in The New Wonder World, Volume Five, and those of Greek and Roman architecture in Volume Four Make a collection of pictures of modern buildings that show Grecian or Roman influence Find out if there are any buildings in your community that show Grecian or Roman influence
- 4 Find out what some of the laws of Solon were Give a report to your class, making a comparison with our present laws
- Demonstrate to the class how the Greeks did each of the following
  - (a) Used astronomy for sailing
  - (b) Measured an object by the height of its shadow
  - (c) Explained the atomic theory
- 6 Trace the story of the astrolabe and the compass through history If possible show the class how they work Perhaps you can make models of them
- 7 Demonstrate to the class the use of the following by the Romans
  - (a) Heating systems in baths
  - (b) Water supply systems
  - (c) Filtering water
  - (d) Use of arch and dome for greater height, and space, and light
- 8 Start booklet on *Great Discoverers and Their Discoveries* Individual booklets will be interesting. Illustrate them with your own drawings
- 9 Collect all available materials, pictures, magazine articles, reference books, etc, that will help you learn more about the discoveries of the Greeks and Romans Keep up your bulletin board on Exploration and Discovery
- 10 Suggestions for review
  - (a) Have a socialized recitation, using the problems for study at the end of the subject matter outlined
  - (b) Make a series of p ctures or a frieze for your room, showing Greek and Roman discoveries

#### UNIT III - Medieval Man

By this time the children will probably be interested and curious to find out how other discoveries and inventions were made. From this point on it should be possible to base the class work and discussion on questions or problems arising within the group. One of several procedures might be followed.

Each child in a group might select the one thing he is most interested in and carry it through history. For example, one child might study intensively great discoveries in science, another, those in geography, another, great inventions, etc. By means of class discussions, reports, and illustrative materials, the information and ideas gained can be shared

The class might be divided into groups, each group studying one phase of discovery and invention, such as scientific discoveries, invention of machinery, geographical discoveries, etc Group reports of the material studied can be given

The material can be studied chronologically, if the teacher so desires, by taking up each discovery and invention as it comes along, or by the class as a whole first studying scientific discoveries, then geographical discoveries, etc

No matter what the procedure, the subject matter is the same. The teacher should be sure that the pupils are seeing the relationship between these different discoveries, and also the relationship between these discoveries and inventions and the growth of civilization. As an example of this, the real use of gunpowder changed the whole manner of life in the Middle Ages because it doomed feudalism with its castles, drawbridges, single combats, etc. In our modern times the invention of the steam turbine has made possible the development of such mammoth vessels as the *Leviathan* and the *Europa*. Such relationships must be constantly recognized, otherwise such a study becomes the mere cataloging of information under headings — scientific discoveries, geographical discoveries, etc

In order to understand the next great period of discovery, 1300–1700 A D , it will be necessary for the pupils to know something about what men were doing from the time of the fall of the Roman Empire to the fourteenth century—If the problem has not already come up in class, the teacher should draw attention to the fact that during these years very little progress was made in the field of discovery and invention

# Problem I What were men doing during the first thirteen centuries after the birth of Christ?

This problem will bring up a discussion of feudalism, the growth of the church, the Crusades, growth of towns and guilds. The pupils should see how this was a period of the merging of the Romans and Barbarians, and that life was taken up for the greater part with fighting and making a living, that the church became the powerful factor, with the clergy and the nobles the only ones who had the chance to learn, and that the real teachers of this age were the monks in monasteries, who preserved the learning and discoveries of the Greeks and Romans for us Attention should be called to the civilization being developed at the same time in Asiatic countries, and to the period of awakening (1000–1300) when such men as Roger Bacon were experimenting with ideas, and Marco Polo's travels were leading to a vast trade with the East The question will probably come up, "What was discovered in this period?" While there are few specific discoveries or inventions, this age did make a definite contribution to man's learning through its development of native languages and literature, the idea of cities and towns, and the development of law and Gothic art and architecture

It does not seem desirable to go so far afield from the unit we are studying as to go into a study of feudalism, the Crusades, and knighthood. The knowledge of these, which will be necessary in order to interpret the next period of discovery, should come from class discussions, special reports, and reading done by the children and the teacher

Page References for Problem I — THE NEW WONDER WORLD
I (A-F) Vol VII, Pages 49-73

#### SUBJECT MATTER - Problem I

- I Life in Europe during the first thirteen centuries after Christ
  - (A) Rule of the Barbarians or Teutons
    - I Ignorance of rulers
    - 2 Lack of interest in education and learning
    - 3 Charlemagne
      - (a) Wars
      - (b) Interest in building and education
    - 4 The coming of the Norsemen
    - 5 The spread of Mohammedanism into Europe
  - (B) The Crusades
  - (C) The growth and power of the church
  - (D) Development of medieval trade

- (E) How the people lived
  - (a) The nobles and clergy
  - (b) The freemen
  - (c) The serfs
- (F) Rise and fall of feudalism

As a further preparation for the next period of discovery, the teacher asks the pupils if they have noticed during their study how many different kinds of discoveries and inventions were made by the ancients. She points out how man's knowledge is classified into rather definite fields, such as law, medicine, science, machinery, etc., that there is a very great correlation between branches of knowledge — for example, a great engineer must know much about science, a great explorer must know much about geography, etc., and that there have been great discoveries and inventions in every field. (Class discussion.) With the help of the group, the teacher lists on the blackboard the well-known fields of knowledge. The list will be different according to differing groups, but will run something like this

Building

General

etc

Geography

Mechanics

Social Relationships

Science
Art
Music
Medicine
Law
Engineering

It will be fun to try to classify the discoveries on the chart of Fifth Grade Discoveries under some of these headings Follow this by classifying some of the discoveries of the early man and the ancients

Problem II. In what fields were many discoveries made during the fourteenth to the seventeenth centuries in Europe?

The children read to answer the question, not necessarily to learn about the discoveries. After the answer has been determined, each child may be permitted to choose the field he wishes to work in, or the teacher assigns certain fields to different groups, or the class decides to study a certain field. It is wise to have the pupils help decide how you wish to carry on the work, as well as how the material will be presented to the class, what activities to carry on, etc. Suggestive problems and activities follow the subject matter in this outline, which is given as general discovery and invention of the period, and not in special fields

## Page References for Problem II - THE NEW WONDER WORLD

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Vol VII, Pages 59-63, 67-71
L (A) Vol VII, Pages 57-63, 67-77
                                                                      II (A1)
                                                                                        IV, Pages 5-9
I, Pages 1-6
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         lo I
                 I, Pages 1-10, 262, and 265
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         lo I
                II, Pages 5-12, 36, 43, 143, 208-209, 220-222
                                                                           (A2)
                                                                                  Vol IV, Pages 2, 4, 27, 28, 29
Vol VII, Page 74
                X, Page 327
I, Pages 262, 265, 266, 267
         lo I
         1 ol
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(A<sub>7</sub>)
   (D) \( \overline{O} \)
                                                                                        IV, Pages 11-10
                II, Pages 9 and 24.
                                                                                  Vol.
                                                                                   Vol VII, Pages 106-107
          Vol IV, Pages 296-207, and 310
                                                                           (B-C) Vol IV, Pages 11-53
                1, Pages 277-207
   (Er) Vol
                                                                                  Vol VII, Pages 107-108
   (E2) Vol
                1, Pages 336-347
    (E<sub>3</sub>) Vol IV, Pages 244-250
                                                                                  Vol. VII, Pages 130, 284, 288, 290
                                                                           (D)
                V, Pages 248-249, 251-254.
   (E4) Vol
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#### SUBJECT MATTER - Problem II

- I The Renaissance or revival of learning
  - (A) Causes
    - Influence of the Crusades
    - 2 Influence of the growth of trade with the East
    - 3 Influence of the fall of feudalism
  - (B) Exploration, discovery, and invention in the scientific field
    - I Change in ideas about the shape and motion of the earth
      - (a) Work of Roger Bacon
      - (b) Ideas of da Vinci and Copernicus
      - (c) Galileo and the telescope
        - 1 Idea of the sun as the center of the universe
    - 2 Perfection of the use of paper and glass
    - 3 Use of gunpowder Battle of Crecy
      - (a) Effect on civilization
    - 4 Use of the compass and the astrolabe
      - (a) Work of Roger Bacon
    - 5 Invention and use of the lens
      - (a) Work of Galileo
    - 6 Perfection of the clock
      - (a) Work of De Vick, Galileo, and Huygens
        - 1 Springs and pendulum
    - 7 Discovery of the circulation of the blood by Harvey
  - (C) Famous scientists of this period
    - 1 Leonardo da Vinci (1452-1519)
      - (a) Experiments with steam
      - (b) Experiments with flying
      - (c) Designing of canal locks
    - 2 Copernicus (1473–1543)
      - (a) Theory of planetary motion
    - 3 Andreas Vesalius (1514–1564)
      - (a) Discovery of the structure of the human body
      - (b) Use of facts to establish scientific truths
    - 4 Galileo (1564-1642)
      - (a) Studies in astronomy
      - (b) Law of falling bodies
    - 5 William Harvey (1578-1657)
      - (a) Discovery of the circulation of the blood
    - 6 René Descartes (1596-1650)
      - (a) Use of experiments to test truth
    - 7 Isaac Newton (1642-1727)
      - (a) Law of gravity
  - (D) Other discoveries based on scientific principles
    - The spinning wheel
    - 2 The sawmill
    - 3 Printing
      - (a) Johann Gutenberg's use of movable metal type and screw press
    - 4 The knitting machine
      - (a) Work of William Lee

- 5 Submarines
  - (a) William Bourne's idea
- 6 Ships
  - (a) Three- and four-masted sailing vessels
  - (b) The galleon
- (E) Explorations, discoveries, and inventions in the field of art
  - 1 Painting
    - (a) Influence of the guilds
    - (b) Use of perspective
    - (c) Use of oils on canvas
    - (d) Fresco or "wall painting"
    - (e) Famous painters of the period

1 Giotto 11 Carpaccio
11 Fra Angelico 2 Titian
111 Gozzoli 21 Velasquez
11 Botticelli 21 The Van Eycks
12 V Leonardo da Vinci 21 Rubens

v Leonardo da Vinci xiii Rubens vi Raphael xiv Rembrandt

vii Michelangelo v Durer and Holbein

viii The Bellinis

- (f) The Sistine Chapel
- 2 Sculpture
  - (a) Idea of individual expression
    (b) Work of Ghiberti
    (c) Work of Donatello
    (d) Verrocchio
    (e) Verrocchio
    (f) Michelangelo
    (g) Use of reliefs
  - (d) Luca della Robbia
- 3 Architecture
  - (a) Revival of classic architecture of Greece and Rome
- 4 Music
  - (a) Invention of the violin
  - (b) Development of the piano
  - (c) Introduction of the opera and ballet
- (F) Miscellaneous discoveries and inventions
- II How exploration in the 15th century was given a new impetus, resulting in discovery of a new world
  - (A) Events in the Old World leading to interest in exploration and discovery
    - I Growth in trade and travel with the East
    - 2 Changes in conception of the geography of the world
    - 3 Use of the astrolabe and the compass
    - 4 Discovery of the art of tacking in sailing
    - 5 Conquest of Constantinople by the Turks
    - 6 Experimentation with ideas by Roger Bacon
    - 7 Search for a new route to India
      - (a) Cutting off of trade route to East by Turks
      - (b) Interest of Prince Henry in navigation
        - 1 Making of maps by Fra Mairos
        - 11 Rounding of "Cape of Good Hope" by Bartholomew Diaz
        - 111 Christopher Columbus' search for a new route to the East Indies

- (B) Discovery of a new world
  - I Christopher Columbus' first discovery of land
  - 2 Naming of America
  - 3 Three other voyages of Columbus
  - 4 Making of first map of the New World by Juan de la Cosa
- (C) Search for and exploration of land by countries of Europe
  - 1 Spain
    - (a) Ponce de Leon in Florida
    - (b) Pedro Cabral in Brazil
    - (c) Balboa's discovery of the Pacific
    - (d) Spanish settlements in the West Indies
    - (e) Cortez' conquest of Mexico
    - (f) Coronado's search for the "Seven Cities"
    - (g) Circumnavigation of the world by Magellan's fleet
    - (h) Discovery of the Mississippi by de Soto
    - (1) Conquest of the Incas of Peru by Pizarro
    - (1) Exploration and settlements in Yucatan, Mexico, and South America
    - (k) Exploration and settlement of California
  - 2 England
    - (a) The Cabots in Newfoundland
    - (b) Drake's trip around the world
    - (c) Sir Walter Raleigh's attempts at a colony in Virginia
  - 3 France
    - (a) Exploration of the Atlantic coast by Verrazano, an Italian
    - (b) Cartier's exploration of the St Lawrence region
    - (c) Exploration by Champlain, La Salle, and Joliet, of the St Lawrence, Illinois, Ohio, and Mississippi Rivers
  - 4 Holland
    - (a) Discoveries of Henry Hudson, an Englishman
- (D) Other explorations and discoveries of this period
  - Discovery of Australia and New Zealand (New Holland and Friendly Islands) by Abel Tasman, a Dutchman
  - 2 Discovery of the Hawaiian Islands by Juan Gaetana, 1555
  - 3 Discovery of the Philippine Islands by Magellan
  - 4 Discovery of Porto Rico by Columbus on his second voyage in 1492

#### PROBLEMS FOR STUDY

- I Can you give reasons for the lack of discovery and invention during the first 1000 years A D?

  Explain how the people of this period kept law alive for its
- 2 Show how the idea of security was more important during this period than in the one following How did this affect man's life and activities?
- 3 Show how the influence of the church is reflected in the development of painting, sculpture, architecture, literature, and music of this period
- 4 Can you explain what is meant by the "youthfulness" of scientific thinking? How did the Greeks lay the foundations for this type of thinking? You can make this clear by having one of your classmates make a statement about something he takes for granted. Then work out the idea step by step using known facts and prove the statement right or wrong

- 5 What is meant by the Renaissance? You will understand the idea better if you think of a condition like "cold storage". You put good eggs into cold storage, keep them there for a long time, then bring them out and use them Can you enlarge this idea, thinking of the Greeks and Romans as the "eggs" ready for use in the Renaissance?
- 6 Find out all you can about books before the printing press was invented. What do we mean when we say the printing press was an improvement in the communication of ideas?
- 7 How did the invention of gunpowder hasten the downfall of feudalism?
- 8 How were the ideas of inventors and scientists of this time received? Does an inventor have a harder or an easier time at the present?
- 9 Why was this an especially extensive period of geographical exploration?
- 10 How did this period in history help the period that followed?

#### SUGGESTED ACTIVITIES

- If you have not already begun a time line, do so now Show the important discoveries and inventions from earliest recorded history to 1700
- 2 On an outline map of the world show important geographical explorations made during this period
- 3 Make a map of the known world at Columbus' time Use it for comparison at different stages from then until now
- 4 Make a series of cartoons illustrative of the following ideas
  - (a) Why feudalism fell
  - (b) How Marco Polo indirectly influenced the Renaissance
  - (c) The awakening of minds during the period of the Renaissance
  - (d) Contributions of this period to man's learning
  - (e) How one invention influences another discovery or invention
- 5 Visit a printing plant. Add to your chart any discoveries that you make
- 6 Visit an art gallery or museum to see the art and sculpture of this period. Find influences of this period in buildings in your community
- 7 What is a laboratory? Make an experiment of some kind Perhaps the class can work out some with you Observe carefully the results of your experiment
- 8 Try to invent something Show it to the class and discuss its value and construction
- o Select one famous man of this period and find out all you can about him to tell your class Be sure to bring out how his ideas have changed man's learning
- 10 Add to your book of Great Discoverers and Discoveries from this period
- Read stories of the geographical explorers of this period and share with your class
- 12 Collect all the pictures and chippings you can find that will help you understand what you are studying Keep your bulletin board up-to-date
- Write an imaginary account of some discovery of this period as the discoverer himself might have written it
- 14 As a review, act out scenes from this period

## Picture References — THE NEW WONDER WORLD

#### UNIT III

ONII III	
Volume I	PAGE
Galileo Observing the Heavens (color)	frontispiece
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#### UNIT IV - Modern Man

The next part of the study of Man the Discoverer and Inventor will deal with discoveries and inventions of modern times — 18th century to the present. The procedure will differ according to the method each teacher is using in her class. If the class or individuals are carrying on specialized study, they can go on with the problem of what has been done in each field in modern times. Interest and curiosity of the children should carry the unit along

A possible approach to the unit would be a discussion of a newspaper clipping or a magazine article giving an account of some recent discovery. After the discussion, the teacher tells the class of an interesting new discovery she has read about, preferably in a new field. Discoveries in chemistry are being made day by day, and people are always interested in new land and water.

Questions In what fields has modern man made the most discoveries and inventions?

What discoveries and inventions have been made during your life? Within the past five or ten years?

What things do you have that your grandparents did not have?

Your great-grandparents?

Try making a list of discoveries and inventions that are new to your generation, your father's and your grandfather's, and back to 1700

How have these inventions improved or changed your life?

Problems What discoveries and inventions has modern man added to man's learning and living? Why is this age called the "Machine Age"?

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#### Modern Man's Discoveries and Inventions

- I Scientific discoveries and inventions and those involving scientific principles
  - (A) Textile machinery
    - I Principles involved in all machinery
      - (a) The lever
      - (b) Inclined plane
      - (c) Friction
    - 2 The flying shuttle John Kay
    - 3 The spinning jenny Hargreaves
    - 4 The throstle Arkwright
      - (a) Improvement in treating of wool and flax
    - 5 The mule jenny Crompton
      - (a) First time threads of great fineness were made
    - 6 The evolution of the loom
    - 7 The water frame
      - (a) Use of first water wheel
    - 8 Influence of England
      - (a) Recognition of the importance of the textile industry
    - 9 Building of textile machinery in the United States
    - 10 The cotton gin Eli Whitney

- 11 Sewing machine Elias Howe
  - (a) Opposition of people
  - (b) Story of the invention
  - (c) First manufactured in 1850
  - (d) First patent for the "rigid-arm" Singer
  - (e) Improvement of recent times in the sewing machine
    1 Use of electric motor
- 12 The knitting machine
  - (a) Early machine of William Lee
  - (b) Work of Isaac Lamb
- (B) Special machinery
  - I The lathe, the milling machine, and the planer
    - (a) Importance in machine shops
  - 2 Shoe machinery
    - (a) Development
  - 3 Agricultural machinery
    - (a) Early implements
    - (b) Plows, harrows, and cultivators
    - (c) Seeding machines
    - (d) Harvesting and threshing machines
      - 1 Cyrus Hall McCormick's reaping machine
      - 11 Labor saving involved
      - iii Extent of present use
  - 4 Development in printing
    - (a) Influence of steam
      - 1 Use of cylinder press
    - (b) Increase in speed and output
    - (c) The linotype
    - (d) The monotype
- (C) Steam
  - 1 Man's quest for power
  - 2 Early attempts of man to use steam for power
    - (a) Work of Hero of Alexandria, Egypt
    - (b) Denis Papin's experiments
    - (c) First steam pump Thomas Savery
  - 3 Thomas Newcomen's pump
  - 4 Invention of the steam engine James Watt
    - (a) Story
    - (b) Improvement over Newcomen's engine
    - (c) How the steam engine works
    - (d) Evolution of the modern steam engine
  - 5 The steam turbine
    - (a) Story
    - (b) Kinds of turbines
    - (c) Importance in improving ocean transportation
  - 6 Development of the locomotive
    - (a) Use of iron rails for wooden ones, 1767
    - (b) Richard Trevithick's steam locomotive

- (c) The "iron horse" of Stephenson
  - 1 Story of Stephenson
  - 11 How his "iron horse" was an improvement over others
  - 111 Growth of railroads
- (d) Improvements since Stephenson's time

#### (D) Electricity for power

- 1 Experiments of Benjamin Franklin
- 2 What electricity is and how it is generated
- 3 Men who helped develop electricity
  - (a) Michael Faraday

(e) Thomas Edison

(b) James Joule

(f) Alexander Graham Bell

(g) Samuel F B Morse

- (c) Hermann von Helmholtz
- (d) James Clerk-Maxwell
- 4 The magnet
- 5 The dynamo
  - (a) Principle involved
  - (b) Discovery of the law of the dynamo Michael Faraday
- 6 The electromagnet
- 7 The electric motor
- 8 Use of Niagara Falls for generating power
- 9 Use of Muscle Shoals by the United States government for electric power

# (E) How electricity has changed man's living

- 1 Lighting
  - (a) How electricity produces light
    - 1 The arc light
    - 11 The incandescent light
- 2 Communication
  - (a) The telegraph
    - 1 Story of Samuel F B Morse and his telegraph
    - 11 How the telegraph works
  - (b) Improvements in the telegraph since Moise's time
    - 1 The relay
    - 11 Duplex and multiplex telegraphy
  - (c) The electric cable
    - 1 Inventions leading to the electric cable
    - 11 Laying of the first cable
    - 111 How cables are laid
  - (d) The telephone
    - 1 Importance of the telephone in the United States
    - 11 The first telephone
    - 111 The Blake transmitter
    - iv Strengthening the vibrations
    - v The signaling device
  - (e) A telephone exchange
    - 1 What happens when you telephone
    - 11 Automatic telephones
    - iii Sending pictures by wire

- (f) Radio
  - 1 Scientific principles
  - n First use of wireless by man
  - m How wireless works
  - iv Radio telephony
  - v Growth of broadcasting
  - vi Value of radio to the United States government
- (g) Television
- (h) How the above inventions have changed man's idea of other peoples and places
- (F) The internal-combustion engine for power
  - I Contrast with steam and electricity for power
  - 2 How the power is produced
  - 3 Principles upon which these engines operate
    - (a) The automobile engine
  - 4 Inventions made possible by the invention and use of the internal-combustion engine
    - (a) Automobiles, trucks, and 'buses
- (c) The motor boat

(b) The tractor

- (d) The airship
- 5 Invention of the Diesel engine
  - (a) Influence on development of big vessels of all kinds
  - (b) Influence on the development of the submarine
- (G) The discovery that man can fly
  - I Early ideas of flight
    - (a) Archytus' wooden dove
    - (b) Lana's airship of the seventeenth century
  - 2 Montgolfier's Balloon
  - 3 Hydrogen balloons
  - 4 Early exploration by balloon
    - (a) Expedition of August Andree to North Pole, 1897
      - 1 Finding of Andree's camp, August, 1930
    - (b) First round-trip journey
    - (c) Rivalry of France and Germany in producing airships
      - 1 The Zeppelin
  - 5 Development of the airplane
    - (a) The Cayley glider
    - (b) Work of the German scientist, Lilienthal
    - (c) Work of Octave Chanute
    - (d) Langley's experiments
    - (e) The Wright brothers
      - 1 Story
      - 11 Perfection of the glider
      - iii The first motor-driven machine
      - 1V Success of the Wrights at Fort Meyer, Virginia
      - v Adoption by the United States of an airplane for military purposes
    - (f) Aviation in World Wars I and II
    - (g) Commercial aviation

#### (H) Development of the lens

- What lenses are
- 2 Early discoveries by Galileo
  - (a) The telescope
- 3 The reflecting telescope of Sir Isaac Newton
- 4 Reflector at the Paris exposition, 1878
- 5 Various observatory reflectors
- 6 The spectroscope
- 7 The periscope
- 8 Photography
  - (a) Early experimentation
  - (b) Daguerre's first permanent photograph
  - (c) Draper's first American photographic portrait
  - (d) Development of a sensitive emulsion
  - (e) Work of Eastman
  - (f) Development of the camera
  - (g) Use of the X-ray
- 9 Motion pictures
  - (a) First inventions and inventors
  - (b) Later developments
  - (c) How films are made
  - (d) Making moving pictures in color
  - (e) Development of sound or talking pictures

### (I) Other scientific inventions and discoveries

- 1 Pasteur and germs
  - (a) Invention of inoculation
- 2 Experiments of Walter Reed with malaria and yellow fever
- 3 Dr Charles Stiles' experiments and discoveries with hook-worm
- 4 Discovery of radium
  - (a) Early experimenters
  - (b) Story of the discovery by Professor and Madame Curie
  - (c) Value of radium to the world
- 5 How the above inventions and discoveries differ from mechanical inventions and discoveries in their purpose and result
- 6 Discovery of how to cut steel by heat
- 7 The phonograph
  - (a) The first instrument Edison
- 8 The gyroscope
  - (a) What it is
  - (b) How it works
  - (c) Uses
- 9 Devices for saving life
  - (a) The inhalator
- (b) The respirator

- 10 The typewriter
  - (a) Early typewriter
  - (b) Work of Christopher Sholes
  - (c) Building a modern typewriter

- II Discovery and use of coal as fuel for heat and power
- 12 Discovery and use of oil
  - (a) Development of numerous petroleum products
- 13 Invention of mining machinery
- 14 Invention of the blast furnace
- 15 Invention of the tin can
- 16 Invention of machinery for making paper
- 17 Walker's match
  - (a) Invention of the safety match
  - (b) Machines used in making matches
- 18 Discovery of how to vulcanize rubber Goodyear
- 19 Invention of the air brake Westinghouse
- 20 Exploration into science by Charles Darwin
- (J) Results of all these discoveries and inventions on man's living
  - (a) Labor saving leisure
- (c) Man's control of space and time

(b) A fuel-using age

- (d) A "Machine Age"
- (K) Future of scientific invention and discovery
  - (a) The challenge of chemistry
  - (b) The structure of matter
  - (c) Man and the universe
- II Some great scientists of modern times
- III Geographical exploration and discovery of modern times
  - (A) Captain Cook discovers New Zealand and Australia
  - (B) Lewis and Clark explore the Great Northwest
  - (C) David Livingstone opens up "Darkest Africa"
  - (D) Ross discovers Victoria Land in Antarctica
  - (E) Wilfred Grenfell penetrates Labrador
  - (F) Henry Savage Landor explores Tibet
  - (G) Polar exploration
    - I Nansen reaches farthest north, 1895
    - 2 Peary reaches the North Pole, 1909
    - 3 Amundsen reaches the South Pole, 1911
    - 4 Scott's expedition reaches the South Pole, 1912
    - 5 Byrd flies over the North Pole
    - 6 Byrd's party explores Little America and the South Polar regions
  - (H) Other twentieth century exploration
    - I Mountain climbers conquer Mount Logan
    - 2 U S Geological Survey explores the Grand Canyon and rapids of the Colo rado River
    - 3 Balloon ascensions into the stratosphere
    - 4 Deep sea exploration by means of the bathysphere

### PROBLEMS AND ACTIVITIES

Children and teachers should work out their own problems and activities for this unit These will probably develop naturally

Do wide reading in the field of modern discovery and invention You will find Volume Four of The New Wonder World very helpful This is an opportunity to become acquainted with good newspapers and magazines Ask your librarian for some books on this subject

## Suggestions to Teachers Using This Unit of Work

Be sure that the pupils you teach understand the time factor Start with the idea of the child's age, how long he has lived, how long his parents have lived, etc Explain century Draw a horizontal line of the history of the class so far Begin with the first thing that anyone can remember, call that the first recorded history of the class Bring the line up-to-date by adding one inch for each year of the oldest child's age and by recording interesting local happenings at the proper places Discuss how many years the child has lived, what has happened, and how old he will be in twenty years Then draw a horizontal line to represent the time of mankind's history Beginning with the first recorded date, about 4241 B C, mark the line off in centuries, allowing one inch to each twenty-five years Let the children place any important happenings that they know of where they belong Explain B C and A D Under this line draw a line on the same scale to show comparison of time such as child's age, father's age, age of the United States, age of the school, etc As the work proceeds use the time line constantly by recording and comparing

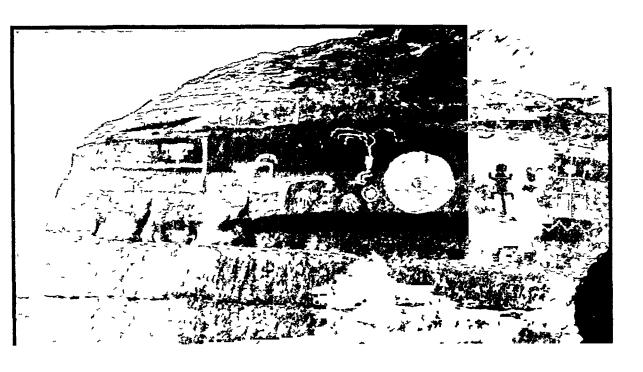
Children need to interpret maps in order to understand history. Begin with the simple familiar things. Make a map of your town, your school yard, your street. Always use a scale and key. Collect all types of maps and encourage children to collect them so that they will become familiar with their purpose. Point out frequently that maps are primarily for giving information and ask the question, "What does the map tell us?" Road maps, railroad maps, literary maps, and relief maps can all be used. Children are fascinated with maps when they understand how to use them. When using outline maps only the simplest ones should be selected. The teacher must be sure that the child understands what the outline represents. Wall maps should always be used in connection with outline maps. When using wall maps, children ask over and over again why Greenland is larger than North America. Even in elementary grades this can be cleared up by using a globe and explaining the Mercator's projection

Distance is another factor which a child has difficulty in comprehending. Some progress can be made by using simple examples from the child's own life first, and then enlarging — across the state, country, ocean, etc

If possible, a number of visits to museums and art galleries should be made during this study

The idea of the *evolution* of these discoveries and inventions must be kept before the pupils Help them to see as clearly as possible how civilization is really a "state of mind" For smaller children, the idea of man using things from his environment to make his life worth living should be stressed

Use every opportunity to connect man's discoveries with present civilization See that the children are kept aware of discoveries now being made



# Indian Life

## Primary Grades

Theme—Ways in which the Indians responded to their environment and made use of things around them for food, clothing, and shelter, and the expression of their artistic feeling

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Dugout Canoe	Vol I, Page 381
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Bargaining for Turs	Vol VII, Page 238

### INDIAN LIFE

- I How the white man first became acquainted with the Indian
- II Different tribes of Indians
  - (A) What a tribe is
  - (B) Who regulated the tribe
  - (C) Difference in language among tribes
  - (D) Name of Indian tribes
    - I The Iroquois or the Six Nations
    - 2 The Algonkin
    - 3 The Sioux, or Dakota Indians
    - 4 Chinook-Canoe Indians
    - 5 Pueblo Indians
    - 6 The Eskimo
- III Homes of the different tribes of Indians
  - (A) Determined by occupation
  - (B) The Iroquois Long House
  - (C) Two types of Algonkin home
    - 1 "Woods Indians"
      - (a) Wigwams made of birch bark
    - 2 "Plains Indians"
      - (a) Tepees made of skin
    - 3 Why there were two different types of homes among the Algonkin Indians
  - (D) The Sloux Indians
    - I Mostly nomads building skin tepees as they moved
    - 2 Some tribes in villages
      - (a) Tepees or earth lodges
  - (E) The board houses of the Chinooks
  - (F) Indian pueblos
    - Home for large number of families
    - 2 Flat-roofed houses
    - 3 Ladders as means of entering
    - 4 Why built in this manner
    - 5 Use of adobe or sun-dried brick
    - 6 Use of stone instead of adobe for Moki pueblos
  - (G) The igloo of the Eskimo
  - (H) The earth lodges of the Pawnee and Omaha Indians
  - (I) The bamboo stilt house of the Seminole

- IV How different tribes of Indians got their food
  - (A) The Iroquois
    - I Hunting
    - 2 Cultivation of maize, beans, and squash
  - (B) The Algonkin Woods Indian
    - I Hunting of wild animals for food
    - 2 Maple syrup
      - (a) How made
    - 4 Chief source of food, wild rice
      - (a) Work of women and children in harvesting
  - (C) The Algonkin Plains Indian
    - I Buffalo meat his main food
      - (a) Pemmican
  - (D) The Sloux Indian
    - 1 Nomads, hunters of wild animals
    - 2 Village
      - (a) Raising of corn and squash
      - (b) Digging of edible roots
  - (E) The Chinook Indian, fisherman
    - I Use of candle fish oil
      - (a) How drawn out
    - 2 Use of dried cakes made from seaweed, berries, or scraped cedar bark



- (F) The Pueblos, agricultural people
  - I Use of wheat
    - (a) How threshed
    - (b) Pueblo bread
- (G) Eskimo
  - I Use of seal meat, fish, and water fowl
  - 2 Hunting of whales

### V Utensils and tools of the Indians

- (A) Iroquois
  - Manufacturing of nets, twine, and ropes from the bark of trees
  - 2 Earthen vessels and pipes from clay
  - 3 Flint stone implements
  - 4 Use of bow and arrow and war club
- (B) Woods Indians
  - I Birch-bark utensils of the Woods Indian
    - (a) Thread from the root of the pine
    - (b) Use of bow and arrow, war club, and spear
- (C) Plains Indians
  - I Utensils and weapons made from buffalo skin, hide, and horns
  - 2 Use of spear and bow and arrow
- (D) Chinooks
  - I Stone implements and weapons
  - 2 Weavers of beautiful baskets
- (E) Pueblo Indians
  - I Utensils made of gourds
  - 2 Pottery and basket making
  - 3 Weaving of blankets
  - 4 Community oven
- (F) Eskimo
  - supplies made from seal
  - 2 Tools and weapons of bone and ivory
  - 3 Use of the harpoon

### VI Cradles and baby boards

(A) How made and how used

### VII How the Indians secured and made their clothing

- (A) Tanning of skins to make leggings, moccasins, and shirts
  - I How moccasins were made
- (B) Use of long one-piece dress for women and children
- (C) Fondness for decoration
  - I Use of porcupine quill or moosehair embroidery
    - (a) Later use of beads
  - 2 Wearing of necklaces by both men and women
  - 3 Use of sinew for thread by the Woods Indian
- (D) Wearing of two sets of clothing by the Eskimo
  - I Lining of clothes with fur and skin
  - 2 Making of clothing by the women

### VIII How the Indians travel

- (A) The use of the canoe
  - I Canoes of different tribes
    - (a) Dugout canoe, Chinook Indian
    - (b) Use ot long slender paddles
    - (c) Use of decoration on both canoe and paddle
  - 2 Use of "Bull Boat" by some tribes
    - (a) Used for ferrying parties across rivers and streams
  - 3 General use of the birch-bark canoe
  - 4 Use of painted eyes on the prow to see where they were going
- (B) Kaiak and Umiak of the Eskimo

### IX Indian life and customs

- (A) Use of councils to settle questions
- (B) Hospitality of some tribes
- (C) Superstitions of some Indians
- (D) Work of the women of the different tribes
- (E) Burial of the dead
- (F) Use of the campfire

- (G) Indian festivals
- (H) Indian dances
- (I) Games of the children
- (J) Use of wampum for money
- (K) Keeping of records

### X Indian folklore

- (A) Indian belief in spirits
- (B) Belief in a "Great Spirit"
- (C) Daily use of prayer by the Indians
- (D) Use of the peace pipe
- (E) Belief in medicine man's power
- (F) Folk tales and myths of the Indians

The approach to this unit can be made through the reading or telling of the story "Why Bears Don't Talk," The New Worder World, Volume Five This is followed by an informal conversation about Indians, each child contributing what he knows about them If the children do not volunteer to bring Indian things from home, the teacher asks if any of them have such articles as Indian dolls, blankets, moccasins, etc, that they would like to bring to school so that the other children can see them Plans are made for a table about Indians

The next day the teacher places some pictures of Indian homes on the bulletin board After the group have talked about the things they have brought from home, the teacher asks the question, "How many have noticed our new pictures?" During an informal discussion of the pictures the idea is brought out that not all Indian homes were the same. Then the idea of tribes can be explained The simplest way to do this is to use a group with which the child is familiar for comparison, such as the family with father and mother as head, the school, etc 
If the group is a third grade or above, the further idea of why Indians lived in tribes can be discussed Tribal names is another interesting topic The teacher explains that many times the tribes took their names from the manner in which they lived or transported themselves from one place to another, so that we have the Pueblos living in homes called pueblos, the Chinook Indians using canoes more than other Indians, etc She helps the children list on the blackboard the names of different tribes they know, and adds a few with which they are not familiar She points out that there were a few big tribes and many small ones within these and that it is impossible to learn the names of many of them, but that there are several that they will talk about frequently She writes Iroquois, Algonquin, Chinook, Sioux, and Eskimo on the blackboard and helps the children say these names She suggests that it might be fun to make a booklet on Indians and asks if anyone can suggest how these names might be used in a booklet After this is decided she goes back to the pictures and helps the children find the picture of the different homes used by these tribes (If pictures cannot be secured, the teacher can sketch them on the blackboard ) She then asks how they can find more information about the homes of Indians, by reading stories, looking for pictures, talking with people, going to a museum, etc The teacher

draws the attention of the children to the material on Indian homes found in The New Wonders World, Volume One, and suggests that each child try to find something about the homes of Indians that ne didn't know before

The next lesson is an informal discussion about Indian homes. Some ideas that should be brought out are. Type of homes built by different tribes, materials used, how built, why built in this way, the inside of the homes, means of protection, decorative features, sleeping and eating arrangements, etc. This material should be made clear by the use of pictures and diagrams, and sketches made by the teacher and pupils during the discussion. Children should be encouraged to collect pictures for the class booklet, for the bulletin board, and for their own use. This lesson can be followed by one in which the group or individuals draw or model different kinds of Indian homes from clay or flour and salt. A group of children might build an Indian village, or the class might have an exhibition of different kinds of Indian homes on the sand table. (If a sand table is not available, a large, strong piece of cardboard or beaver board can be used in one corner of the room as a substitute.) The whole group might like to make a frieze for their room showing different kinds of Indian homes. The children should be encouraged to suggest their own activities in connection with Indian homes.

If there is a museum near enough, the group should now be taken to see the Indian section This excursion should be carefully planned, the children taking the major part in the planning

Following the excursion the interest of the group will carry the unit along Such questions as "How did the Indians dress?", "What did they wear?", "How did they secure and cook their food?", "What games did they play?", "What kind of art did the Indians have?", and many others will come from the children

The procedure from this point can be one of a number A few suggestions follow

- Divide the class into tribes, each tribe organizing as an Indian tribe with a chief at the head Each tribe then studies the life of the tribe he represents, makes things representative of his tribe, learns dances and songs of his tribe, and learns how his tribe lived. Each tribe can plan to share what they've learned by use of dramatization, a series of stories, an Indian play, etc
- 2 The class as a whole can take up each tribe and learn about the life of that particular tribe
- 3 The group can concentrate on one or two tribes which have made definite contributions to the arts of civilization or are best examples of how man has secured food, clothing, and shelter The Pueblos and the Algonquin are perhaps best for this type of study
- 4 If the group lives in a community where the Indian was historically important it might be wise to study the tribes representative of the early history of the community
- 5 Build in the room or school yard a large tepee or wigwam and live for a week or two as the Indians did Use for continuous dramatic play on the part of the children

### ACTIVITIES TO BE CARRIED ON IN CONNECTION WITH ANY OF THE ABOVE TOPICS

- I Building of Indian homes on the sand table
- 2 Telling of Indian stories by children and teacher
- 3 Making and decorating Indian pottery, beads, clothing, utensils, etc
- 4 Weaving of rugs
- 5 Learning and participating in Indian games, dances, and ceremonials
- 6 Studying the common signs and symbols used by the Indians
- 7 Writing original stories, songs, and plays about the Indians
- 8 Taking a trip to the woods and stalking as Indians did
- 9 Baking bread as Indians did
- Participating in a dramatization which shows the general life of Indians, the play, costumes, dances, scenery, etc., all being made by the children

## THE NEW EMPHASIS IN GEOGRAPHY TEACHING

### BY EDWIN H REEDER

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THE subject of geography is not one of the traditional three R's, indeed it is a comparatively recent addition to the family of elementary school studies. Its inclusion in the curriculum of the average school dates back only a little over a hundred years, while reading, writing, and arithmetic have a record of over two thousand years as common school subjects.

In part because of its recency of development, the field, the aims, and the values of geography have been much in dispute. This has been particularly true in the last thirty years, and the definition of geography including the delimitation of its field has undergone a radical and important change during this period. It is most unfortunate that the public at large, and even many teachers and educational theorists have been too little aware of this change. Many of both groups are still thinking of geography as it was before new interpretations of it were developed.

I have before me several quaint little textbooks dating back to that of Jedediah Morse, published in the first decade of the nineteenth century A study of these books is most illuminating from the standpoint of the subject matter and the methods which they embody of publication of the first of these volumes is 1806, of the last 1863 They are most consistent in certain important matters First, as to the definition of geography, the definitions are almost identical in the different books "Geography is a description of the earth's surface" Second, they are alike in giving a vast number of facts and locations indicating little or no relationship between them In the text of Daniel Adams, dated 1814, the title page states the three parts of the book. They are "Part 1, Geographical Orthography, divided and accented, Part II a Grammar of Geography, to be committed to memory (1), Part III, A Description of the Earth, Manners and customs of the inhabitants, manufacturer, commerce government, natural and artificial curiosities etc., to be read in classes"

Part II of this work consists of five pages of definitions, fifty pages of isolated facts about the states of the United States and the countries of the world, and eight hundred forty-two map questions, which include hundreds of locational facts about rivers and cities. Of these map questions the author of the book says "It will not be sufficient that the pupil for once is able to answer these questions they ought to be put to him by his instructor repeatedly, from time to time till the inswers shall become as familiar to him as the numbers of his Multiplication Table" Evidently the author really meant it when he wrote on the title page that Part II of his book was "to be committed to memory."

Some of these early geography texts contain one or two maps, and some of them are illustrated The pictures are

crude wood-cuts which depict usually the strange and atypical features of other countries

What a dream business the study of geography was under the theory of its nature and content which predominated not only when these texts were written but also, indeed, up to our own childhood. Source, directions of flow and mouths of rivers, locations of cities, boundaries, surface features and products of countries, to be memorized by sheer will power and relentless drill, a boresome grand seldom lightened by anything interesting or challenging to children

Here is a description of a typical geography recitation of the past "The teacher raps sharply on the desk. The children jump guiltily and stealthily slip notes and storybooks in their desks

"'Close books,' commands the teacher, although the text in her own hand is open 'Where is Belgium, Mary'' 'James, bound Belgium' 'What mistake did James make''

"'Now, will some one bound Belgium correctly?' In turn, six or eight of the class mechanically repeat the list of countries and directions

"'What is the area" 'What is the population" 'What are the chief products' 'What is the capital?'

"Monotonously the teacher continues to ask questions, carefully noting every fact in the order given in the textbook. She has to do this because she is not quite sure of all the facts herself. Then, too, a departure from the textbook might confuse the children. Miss Jones does dislike to have the even tenor of the recitation disturbed by uncertain answers.

"In twenty minutes the children have repeated all the facts concerning Belgium like so many little phonographs. Only twice has anyone evinced even a glimmer of interest. One of the boys has asked if the picture of the dogs drawing a wagon was a real picture, and a little girl has timidly ventured to tell Miss Jones that she has a cap made of Belgian lace. The teacher quickly passes over the children's contributions as if afraid that she will forget her next question.

"It is not surprising that a rustle of satisfaction passes over the class when Miss Jones says 'Open your books For tomorrow begin with the paragraph at the bottom of page 152 The first word is Holland Study the first column on page 153 and the first two paragraphs in the second column'"

Such recitations were inevitable under the old definition of geography. As long as the subject was defined as "a description of the earth's surface," or, in fact, as a description of anything geography tended to be dull What can be done with descriptions except to learn them? A description is non-dynamic and non-challenging, it does not stir the thought processes of the pupil. Geog-

<sup>&</sup>lt;sup>1</sup> Thralls, Zoe A and Reeder Edwin H Geography in the Elementary School, pp 1-2 Rand, McNally Company, 1931

raphy desperately needed the new interpretation which has been given to it in the last thirty years

The first progressive trend in this new interpretation was the emphasis on the human side of geographical facts. The emphasis of the old ideals was on physiography and geology, the emphasis on the new is on the activities of human beings. Physiographic factors are introduced not for their own sake but because of their relationship to the life and work of people. This was a great step forward.

The next step was to alter the whole aim of the study from a descriptive to a causal emphasis. The minute the idea of cause and effect was introduced, thinking and reasoning rather than memorization became the central This change was thoroughly in activities in its study accord with the spirit of modern education "The sole direct path to enduring improvement in the methods of instruction and learning," says Dewey "consists in centering upon conditions which exact, promote, and test thinking Thinking is the method of intelligent learning, of learning that employs and rewards mind "2 A new definition was necessary to embody this new concept of geography To day it is defined as a study of the interrelationships of human beings and their physical environment The main elements of this physical environment are earth, air, and water in all their various forms and in finitely complicated phenomena, affecting the existence and varieties of plants, animals, and partly in this way and partly directly, the lives of human beings clothes we wear, the food we eat, our recreations, our homes, our physical and mental energy, our occupations, and, to some extent, our intellectual, moral and philosophical ideals are due at least to a considerable degree to our inter relationships with our physical environment either directly or through the flora and fauna which this environment produces

It should be noted that I use the word inter relationships. Man is not a passive and plastic product of the physical forces about him. He annihilates distance with his radio or telegraph and robs it of much of its restricting effect through airplanes, steamships, and railroads. He builds vast irrigating systems to conquer the desert, he constructs huge bridges over rivers and gorges, he harnesses the power of water, wind and fuel in the bowels of earth to serve his aims. The struggle of man with his environment is the theme of the drama of geography, its stage is the world as it is to day

Geography's sister subject, history, records both the story and struggle of the past as well as the complicating and partially non geographic elements of human emotions and ambitions, and their interplay in national development. The aim of one subject is to help children to think clearly and accurately about present human activities as they are interrelated with the physical environment, the aim of the other is to unfold a chronological panorama of human development. Neither could exist without the other, and a full understanding of the problems of our world requires sound training in both

The problem approach dominates the classroom in which modern geography is being studied. The questions, either of the teacher or of pupils are more likely to begin with "why," than with "what" or "where". The charac-

teristic activities are thinking, investigating, collecting data for proof, discussing, and debating. The children's minds are engaged, not in trying to remember, but in analyzing or classifying ideas, in probing and challenging statements, and in accepting and rejecting solutions for problems.

Let us visit a progressive classroom engaged in the study of Brazil Our attention is attracted to the statement of problems on the blackboard We find the following

- I Why does Brazil produce at the present time so little of the world's supply of rubber?
- 2 Why is not the Amazon as important a trade route as our Mississippi?
- 3 If I decided to emigrate to Brazil, where would I like to live, and what would I do for a living?
- 4 Is it likely that Brazil will ever be densely populated?

On one wall is a large scale map of Brazil with products pasted on it. On another is a series of graphs, showing the amounts of rubber produced in Brazil each year over a period of years, in comparison with world production. Nearby is a contrast in graphic form of shipping tonnage on the Amazon compared with that on the Mississippi On the sand table is a relief map with rivers and cities located by means of cards neatly printed by the children

On the bulletin board is a list of the committees who are at work on various problems about Brazil, together with a statement that each is responsible for a test on its problem

Pictures are grouped on another part of this same bul letin board, and there are also a number of large photo graphs in other parts of the room. A few stereographs with stereoscopes and a number of reference books are on a table in the reading corner.

As we enter the room an animated discussion is going on The chairman of one of the committees has just reported on the present situation in the rubber industry in Brazil, and he is being sharply challenged by some other members of the class on his statements. In his answer he refers to the map, and then calls the attention of the class to an advertising booklet on rubber from which he has drawn his data. A reference work is produced by an other member of the class to disprove the facts of the booklet, and the class discuss the probabilities of authen ticity of the conflicting statements.

The whole atmosphere of the room is busy and active, the children are alert and thoughtful. One gains the idea very quickly that these children are too intent on what they are doing to bother either the teacher or themselves with disciplinary problems. The teacher is in charge to be sure, but the atmosphere is natural and free from strain

There are two outstanding essentials if we are to have this modern type of geography instruction and study. The first is a corps of teachers thoroughly trained in the field and capable of true leadership in thinking. As Sir Archibald Geikie expresses it, "In the teaching of geography, as in instruction of every kind, the fundamental condition for success is that the teacher has so thoroughly mastered the subject himself, and takes so much real interest in it, that he can speak to his pupils about it, not in the set phrases of a class book, but out of the fullness of

his own knowledge, being quick to draw his most effective illustrations from the daily experience of those to whom he addresses himself "

The second essential for modern geography instruction is a wealth of material for the children to consult in their search for the solution of their study problems. In the old days of mere descriptive geography, no material was necessary but the textbook. The children "went through" this book from cover to cover, and if any grade mished the part allotted to it, the poor children usually had to go through the same pages again. No reference books or materials were required because no problems demanding data were part of the pupils' learning

A vastly different situation obtains in the modern classroom. The teacher realizes that study purposes and problems arise only in a rich and stimulating atmosphere. The first step, then, in the process of studying any section of the world consists in presenting to the children a wealth of interesting and concrete materials, in order to orient them to their new lines of thought. Pictures, real objects, graphs, charts, and fascinating reading matter are essential for this orientation period. For this work, such a reference as The New Wonder World is a great help. The pictures and vivid reading matter help children to become acquainted with the new section of the world in which they are to travel in imagination, and assist in the formulation of worthwhile study purposes.

When such purposes or problems have been located and defined, the process of the collection of data begins. Under the guidance of a wise teacher the study problems are so chosen and phrased that the study of them will bring out the important phases of man's inter-relationships with his physical environment in the region which is being studied. In order to accomplish their aims, the children will need to read widely, to engage in various sorts of manual activities to illustrate geographical ideas and meanings, and to arrange their data under the headings of their problems. No one textbook can possibly supply all the facts and ideas that are necessary. Reference works then are indispensable for the collection of data as well as for the stimulation of the children.

The third phase of the work is the natural culmination of the first two. It is the time when the children summarize what they have learned, such a summary may have many forms. Dramatizations, programs in which various children give short talks, exhibits of various kinds, and similar activities may be presented either to parents, to assemblies or to other classes in the school.

Exact knowledge is not depreciated in all this work indeed, quite the contrary is true. Under the old descriptive geography a misstatement was a small matter. When thinking is the method of learnin, however the need for correct and sufficient data is vitally important, because a mistake in data may mean a mistake in a conclusion, and the whole study structure falls to pieces. Tests of facts, therefore, made at least in part by the children themselves constitute one part of the summarizing activities.

The textbook has been mentioned above, and it is important that its place in the modern study of geography should not be misunderstood. While it no longer constitutes the total subject matter with which the child

comes in contact, yet it still has a very great value. It furnishes the main core of knowledge which is shared by all the children. No discussion is worth much unless the participants have a common ground of knowledge and understanding, and the textbook of which each child has a copy, and which should be frequently studied by the entire class under the guidance of the teacher, supplies the common core of shared information. Moreover, the maps, tables, charts and the like which the class can study as a group are most valuable in discussion.

A text, however, has its limitations of usefulness Because of the fact that it must cover so extensive a field as the geography of our world, it must lack that wealth of interesting detail which makes for vividness and clarity of understanding, and thus gives life and reality to discussions of other lands and people

We hear much in discussions of modern education of the necessity of bringing reality into the classroom. In this matter teachers frequently confuse reality and actuality. They are not the same at all. An actual experience, uninterpreted or un-understood may have the unreal character of a nightmare, whereas a vicanious experience obtained through reading vivid material or listening to a well-told narrative may have an almost overpowering reality.

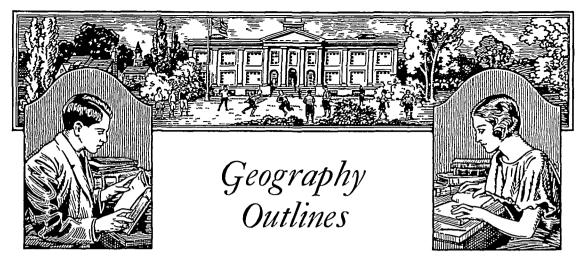
A thing has reality for a child when it has meaning or significance for him. Such meaning and significance are the results of much vivid, colorful, and easily interpreted detail. This the textbook, because of limitations of space, cannot supply to the extent that it is needed

The modern classroom, then, is equipped with plenty of maps, with a file for newspaper and migazine clippings and pictures, with stereographs and stereoscopes, with slide projection apparatus, and with plenty of good, supplementary books and reference works

We have defined the aim of geographs in the elementary school as the study of the inter-relationships between man and his physical environment. This is, indeed, the immediate aim. But it plays its part in the larger aim of the social studies which has often been defined as world citizenship. The citizen of the world allows no differences of creed, color or nationality to restrict the breadth of his tolerance, nor the depth of his sympathetic understanding. His attitude toward every nation is the embodiment of the French proverb, "To understand all is to forgive all."

Geography has some obvious utilitarian values, to be sure, but its most important aim transcends the utilitarian. It plays a major role in bringing to every child who studies it wisely, an insight into the problems of other nations and other sections of his own nation which is indispensable for intelligent participation in the duties of adult citizenship. Through geography a child learns that people are people, whether their skins are light or dark, whether they wear hats or turbans, whether they live in houses or in tents. He learns to delight in other nations' successes, and to sympathize with their failures and mistakes

Ignorance, greed, and national provincialism are the three heads of the monstrous hydra which threatens now, perhaps, more than ever before to destroy the future peace of the world Toward the preparation of future citizens for the struggle against this monster, geography assumes a significant responsibility



CHILD LIFE IN MANY LANDS THE STORY OF THE EARTH THE SEA SOME PEOPLES OF THE WORLD HOW THE WORLD IS FED MODERN MANUFACTURING

## THE ISLAND POSSESSIONS OF THE UNITED STATES OUR NEIGHBORS ON THE NORTH

The following outlines are subject-matter outlines and are suggestive only. They are not arranged in any logical or psychological order, but are intended to cover the subject matter of particular problems met in Geography. For example, if a class is interested in Japan, material can be found in the outlines on *How the World is Fed, Child Life in Many Lands*, and *Some Peoples of the World*.

## CHILD LIFE IN MANY LANDS

### I Holland

- (A) What the country is like
  - 1 Landscape

3 Dikes

2 Canals

4 Cleanliness

- (B) Homes of the people
- (C) Life of the people
  - I What they eat
    - . 3377--4 41----

3 Customs

- 2 What they wear
- (D) How the children of Holland play
- (E) The story of a boy who saved his country

## II China

- (A) A Chinese baby's party
- (B) The homes of the Chinese
  - 1 How built
  - 2 Furniture and utensils used
- (C) Food of the Chinese
  - 1 What they eat
  - 2 Use of chopsticks
- (D) Clothing worn
- (E) School lite
  - I Beginning of school
  - 2 The Chinese alphabet

- 3 The houseboat or junk as a home
  - (a) Life on a houseboat
- 3 Customs at meals
- 3 How the pupils learn and recite

CHILD LIFE IN MANY LANDS (F) Play and amusements of Chinese children 3 The Kite Festival The Feast of Lanterns 2 The Children's Own Festival 4 Games and riddles III Spain (A) How children get around in Spain (B) How the family washing is done (C) Politeness and manners (D) Spanish customs I Toro de Fuego 2 Dance of the Seises IV Switzerland, Moravia and Hungary (A) Farm Life in the Swiss mountains (B) Famous Swiss cities (C) Peasant girls of Moravia I Dressing the Morana 2 The legend of Marfa (D) Cowboys of Hungary I A Round-up V Greece (A) Children of Greece I Different nationalities represented (B) School life I A history lesson VI Turkey (A) Children 1 Modern schools 2 Respect for parents and older people (B) Homes 1 How they are built 2 Furniture 3 What and how the people eat (C) Religion 1 Daily prayer 2 Pictures and statues forbidden VII India (A) What the country is like (B) The children of India 2 Politeness of I Seriousness of (C) Rules and customs to be observed by the children I Castes 2 Reverence for parents 3 Religious customs

4 Necessity of wearing a turban

I Children's offerings in the temple

2 Customs at meals

(D) The food of the children

(E) Religious duties

I What they eat

CHILD LIFE IN MANY LANDS 100 (F) Plays and games of the children (G) School life 1 Lessons and recitations (H) An Indian bazaar (I) Indian festivals т Festival of Dassivek 2 Festival of Sarasvati (T) Wedding customs in India VIII Japan (A) Children of Japan Obedience to parents 4 How they play 5 School life 2 How the girls are brought up 3 How the boys are brought up (B) Hospitality of the Japanese (C) Religious customs (D) Festivals r Kite flying 4 Feast of Dolls 2 New Year Festival 5 Feast of Flags 3 Feast of the Dead IX Children of Italy (A) Breakfast in a basket (C) A visit to Venice (B) Cooking in the street X Sweden, Norway, and Lapland (A) Education in these northern countries 2 What children learn I Time in school (B) How children are named (C) Celebration of birthdays and holidays (D) How maids are chosen (E) Laplanders and their reindeer I Use of milk and venison for food (F) How "Rock-a-Bye-Baby" is cared for (G) Old Viking customs XI Life in Arabia (C) Hospitality of the Bedouins (A) How people travel Manners and customs (B) How they dress (D) Language XII Life in Persia (A) How school is conducted (C) Marriage customs

> I How children learn to write 2 How they are punished

(B) What food is eaten

(D) Dress of the Persian woman

2 On the street

τ At home

(E) A day at the bath

## XIII In Ancient Egypt

- (A) How the baby is named
- (C) Fairy stories in Egypt
- (B) Celebration of the Nile flood
- (D) Pets of the children
- z Sacrifice made
- 2 Stamping the legs of the boy

## XIV Children in Australia

- (A) Play with their pets
- (C) Life in the city

(B) Life in the country

(D) Flowers, birds, and trees which they love

### XV New Zealand

- (A) Voyage on the way to New Zealand
  - I Schools of whales and porpoises
  - 2 Interesting birds
- (B) Some interesting places
  - I Life in a whaling city
- 5 Glowworms in caves
- 2 Dances of the Maoris
- 6 Farm lands
- 3 A swordfishing ground
- 7 Mountains and glaciers
- 4 Diving in Hot Lakes

## XVI Life in Hawaii

- (A) Beauty of the country
- (C) Language of the people

(B) Some old customs

- (D) The food they eat
- I Fish-hooks of chiefs' bones
- (E) Riding on the waves
- 2 Cloaks made of feathers
- (F) White people who helped life on the island

## XVII The Filipinos

- (A) Kinds of children
  - I The brown boy who lives in a bamboo house
  - 2 The little yellow Igorrote baby
  - 3 The black boy with a big cigar

### XVIII Mexico

- (A) Fiestas
  - I Dance of the Little Cocks
- 3 The Feather Dance
- 2 The Deer Dance
- 4 Dance of the Weavers

## XIX Christmas in Many Lands

### Page References - THE NEW WONDER WORLD

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### SUGGESTED ACTIVITIES FOR CHILDREN

- I Show how the Dutch children live, by making a Dutch house and furnishing it. It will be fun to build a bed for the baby and show where it is kept. Will the house be more than a place for just the family to live? Give yourselves Dutch names and play in the house
- 2 Dress a doll to represent the clothes of some of the people who live on the Island of Marken
- 3 With some sandy soil and water show how Holland is being built up out of the sea Show how the Dutch have had to keep the sea out Read the story of the boy who saved his country in The New Wonder World, Volume VII, Page 318
- 4 Have a Chinese tea party What kind of tea will you use? What kind of cups will you use? What will you put in the tea? How will you prepare yourself for the party? You might serve a Chinese meal and use chopsticks which you can make yourself Try eating rice Hold the sticks in one hand
- 5 Play as the Chinese do at school You can send to the New York Times and ask for a Chinese newspaper It will show you what Chinese printing is like. Take a small brush and make some Chinese characters with ink. Make up a story with Chinese characters and read it to your class.
- 6 Make some colorful Chinese lanterns and have a Feast of Lanterns
- You can make some kites and pretend it is the ninth day of the ninth month Go to some part of the school grounds to fly your kites This will seem like a Chinese holiday
- 8 Play some of the Chinese games mentioned on Page 324 of Volume VII in The New Wonder World Write a Chinese riddle
- 9 If you have anything which has come from China, bring it to school You can make simple, Chinese loose jackets out of some old cloth from home or out of unprinted newspaper which you can buy at the newspaper office
- You can whittle some castanets out of wood Tie two of them together with a string and then slip the string over your largest finger Strike the castanets together inside your hand and make up a Spanish dance to the rhythm they make A bright-colored cloth tied over your head or around your neck will make you look a little like Spanish children
- Pretend you are Gabriela and that you live in Moravia Learn to color Easter eggs as she and her sister did and to tell the old Slavic legend of Marfa
- Name all the Greek letters you have ever heard You know about the delta in the Mississippi River Capital delta is written △ You can soon learn to say the whole Greek alphabet Look for these Greek letters in newspapers and magazines
- Could you run "a Marathon race"? At the Olympic Games which are played every four years and which were in Los Angeles, California, in 1932, this race is still run. You might have a race and call the winner a "Marathon" runner, even though he doesn't run so far. See Page 330, Volume VII, The New Wonder World
- 14 Play school to show how Jussuf of India learns Greet your friends as he does and see if you can learn to repeat his exact words, "El salaam aleikum"
- 15 Write down all the rules of the Koran that you know
- 16 If you ever sleep on the floor at home, you can imagine you are Jussuf Try making a bed like his
- 17 Make a list of the kinds of food that the children of India eat Check those which you have never tasted
- Get some old wheels and see if you can make a rickshaw You can take turns being rickshaw boys. See if you can move about on stilts as easily as the Japanese children do
- You can make some colorful crepe paper fish like those in the picture on Page 362, Volume VII of The New Wonder World You can have a Japanese Boys' Flag Feast

- 20 Make a Viking ship and point out how it is different from other ships
- 21 Ask your teacher to read you stories from the Arabian Nights
- When you have finished this interesting trip to many lands, you might divide into groups and each one show one of the following (1) How Christmas is observed in different lands, (2) What children do in school in each land, (3) How and what they eat in each place, (4) Games and festivals of each land, etc. It will be more interesting to dress as much like these children as possible. Invite another grade, another school or your parents. Music and dancing of different lands will add interest to your program.

You can get more information about these peoples from books you have at home or from books your teacher may read to you. At a school festival you could have a booth for each country and serve one kind of food eaten in that country

	THE STORY OF THE EARTH
Ι	How the solar system began (A) The nebular hypothesis (B) A later theory
Π	The Volcanic Age
Ш	Formation of the oceans
IV	The earth itself (A) History (B) Shape (C) How soil is made and rocks are formed
	1 Sedimentary rocks 2 Layers of rock 3 Fossils 5 Organic rock 6 Metamorphic rocks (D) Earth ages
	1 Archeozoic age 5 The Quarternary age 2 Paleozoic age (a) The ice period 3 Mesozoic age (b) The present period 4 First geological era
	(E) Changes in the earth's crust  1 Weathering 2 Earthquakes and volcanoes (F) Composition of the earth
	1 Rock 2 Water 3 Air
V	The story of air  (A) What air is  (B) Weight of air  i The barometer  2 The thermometer  (C) Heat and moisture in air
1/T	Clouds

(A) How clouds are formed

(C) How rain and snow are formed

(B) Kinds of clouds

(D) What causes winds

(E) What causes hail sleet, and ice

2 Glaciers and icebergs

(F) What becomes of rain

1 Streams

### VII The slope of the earth

- (A) Proof that it is round but not perfectly round
- (B) Proportion of land and water

### VIII Climate

- (A) Dependence upon weather conditions
- (B) Variation in heat and cold

### IX Some wonders of the earth

- (A) Volcanoes
  - I The old legend
  - 2 Where volcanoes are found
  - 3 What a volcano is
    - (a) Cone from liquid rock
    - (b) The crater
  - 4 The eruption of Vesuvius
    - (a) Cities
    - (b) How it still behaves
  - 5 Eruptions of other volcanoes
    - (a) Mont Pelée in Martinique
- (B) Hot springs and geysers
  - I Source from volcanoes
  - 2 Yellowstone geysers
- (C) Earthquakes
  - I Use of seismograph for measuring vibrations
  - 2 Causes of earthquakes
  - 3 Some notable earthquakes
    - (a) Charleston

- 5 (b) Krakatoa near Java
  - (c) Taal in the Philippines
  - (d) Katmaı ın Alaska
    - 1 Mount Wrangell
    - 11 Mount Shishaldin
    - 111 Bogoslof
- 6 Where volcanoes are most numerous
- 7 Kinds of volcanoes
- 8 Lava areas
- 9 Kinds of lava
- 3 Cause of geysers
- 3 (b) San Francisco
  - (c) Japanese disaster
- 4 How earthquake shocks travel
- 5 Where earthquakes may be expected

#### X Mountains

- (A) Man's attitude toward mountains
- (B) How they are formed
- (C) Highest ranges of the world
  - T Rockies in North America
  - 2 Andes in South America
  - 3 Alps in Europe
- (D) Climate of mountains

## XI Deserts

- (A) How deserts are made
- (B) What the desert is like
  - I Hot days
  - 2 Cold nights
  - 3 No clouds
- (C) Desert resemblance to the ocean

- 4 Himalayas in Asia
  - (a) Mt Everest, the highest peak
- 5 Chains of Africa and Australia

- 4 Barren lands
- 5 Sandy plains which change shape

- (D) Some well-known deserts
  - I Sahara of Africa
  - 2 Gobi of China
  - 3 Atacama of South America
- 4 Salt fields of Utah
- 5 Bad lands of Wyoming

(E) Desert oases

## XII The story rivers tell

- (A) What a river is
  - I How it flows

2 What it carries

3 Need of reforestation

- (B) Shape of a river bed
- (C) Seasonal floods
  - 1 Heavy rains
  - 2 Melting snows
  - 2 Melding shows
- (D) Some interesting rivers
  - I Floods of the Nile
  - 2 Swiftly flowing Jordan
  - 3 Commerce on the Yangtze
  - 4 Destructive floods of Hwang-ho
  - 5 Sacred Ganges of India
  - 6 Large Amazon of South America
  - 7 Romantic Mississippi, father of waters in the United States
  - 8 Historic Hudson of New York
  - 9 Navigation on the St Lawrence
  - 10 Scenery along the Columbia
  - 11 Grand Canyon of Colorado
  - 12 Familiar Potomac

## XIII Some great divides

- (A) What they are
- (B) Those in North America
- (C) How cities grow up
- (D) How deltas and river valleys are tormed

### XIV Waterfalls and rapids

- (A) What causes them
- (B) How they help industry
- (C) Niagara Falls
- (D) Other famous falls
  - I Yosemite in California
  - 2 Staubbach in Switzerland
  - 3 Schaffhausen on the Rhine
  - 4 Rinkan-fos in Norway
  - 5 Paulo Affonso in Brazil
  - 6 Victoria Falls in South Africa
  - 7 Great Falls in Montana
  - 8 Twin Falls
  - 9 Shoshone Falls
  - 10 Multnomah Falls

## XV Underground rivers and caves

- (A) How they are formed
  - 1 Stalagmites
  - 2 Stalactites
- (B) Some famous caves
  - I Adelsburg Caves in the Alps
  - 2 Luray Caverns, Virginia
  - 3 Gailenruth in Germany
- (C) Caves in the ocean
  - r How they are formed
- (D) Natural bridges

- 4 Wookey Hole in England
- 5 Mammoth Cave of Kentucky 6 Carlsbad Caverns in New Mexico
- 2 Where they are formed

### XVI The story of glaciers

- (A) How they are formed
- (B) How fast they move
- (C) Why they move
- (D) Where they are found

- (E) The work they perform
- (F) Some ice sheets in the world
  - 1 Greenland
  - 2 Antarctic continent

### XVII Unusual happenings in nature

- (A) Avalanches
  - 1 Causes
- (B) Whirlwinds and cyclones
  - I The cause
  - 2 Tornado regions
    - 3 Hurricanes
    - 4 Typhoons
- (C) Floods which destroy
- (D) Eclipses of the sun and moon
- (E) Man's control of nature

- 2 Disastrous results
- 5 Cyclones
  - (a) Their characteristics
- 6 Whirlwinds in the desert.

### XVIII Treasures in the earth

- (A) Minerals
  - I Some kinds we use
  - 2 How we get them from the earth
  - 3 The story of iron
    - (a) The iron age
    - (b) The steel age
    - (c) Iron fields
  - 4 The story of gold
    - (a) Why it is used for coins
  - 5 Silver, zinc, lead, copper, coal, salt
  - 6 Precious stones and gems
    - (a) Where found
    - (b) Diamonds
    - (c) Other precious stones

THE SEA

### THE SEA

### I What the sea is like

- (A) Why the sea is salt
- (B) Movements of the sea
  - ı Waves
  - 2 Tides
    - (a) Cause

(b) Frequency

- 3 Currents
  - (a) How they travel
  - (b) Work of Gulf Stream and Arctic Current
  - (c) Effect on temperature
- (C) Depth of the ocean
  - I Shelves

2 Floor

(D) Winds of the ocean

I Trade winds

2 Monsoons

3 Region of calms

(E) Dangers of the sea

1 Typhoons

2 Tornadoes

3 Icebergs

(F) Life at the bottom of the sea

r Plant

2 Animal

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### SUGGESTED PROBLEMS FOR THE TEACHER

- I How the earth has written her diary
- 2 Ways of proving that the earth is very old
- 3 The effect of weathering on the earth's surface
- 4 Why people are affected by high altitudes
- 5 Why clothes dry more quickly on some days than others
- 6 Why some clouds bring rain
- 7 How plants and animals maintain a "balance of life"
- 8 How we know the real shape of the earth
- 9 Why geysers appear sometimes in cold water, streams or lakes
- 10 Why the Mississippi River carries so much soil into the ocean
- II Why river valleys are fertile
- 12 Why rivers flow in different directions
- 13 How stalactites and stalagmites are formed
- 14. Why reforestation is so necessary
- 15 How sponges are formed and how they live

### SUGGESTED ACTIVITIES FOR CHILDREN

- I Take a walk to a place where there are layers of rock Find evidences of some disturbance caused by the forces of nature
- 2 See if you can find some fossils in rocks in your neighborhood
- 3 Keep a record of the heat and humidity of your home or school for a month See if you can account for the changes
- 4 When there are clouds in the sky see if you can tell which kind each one is
- 5 Turn water from a hose into a sand pile Watch what happens when the stream becomes sluggish from carrying sediment
- 6 Read some of the interesting stories of Pompeii
- 7 Find a stream in your locality which seems to change its course from time to time. Account for the changes
- 8 Make some sand mounds of different shapes in your sand bin and see what the wind does to them
- 9 Try to take the salt out of salt water Follow the directions in Volume I, Page 199 of The New Wonder World
- Write the United States Weather Bureau at Washington, D C, and secure a weather map Use this for studying the actions of the winds

### SOME PEOPLES OF THE WORLD

### I The Chinese

- (A) How China is changing
- (B) How the nature of the country has helped to determine the character of the people
- (C) The part played by religion in the life of the Chinese
- (D) Influence of tradition and custom upon life in China
- (E) How the coming of the Europeans has affected life in China
- 2 Importance of family
- 3 Education

- 1 Chino-British War
- (F) How the Chinese get a living

  1 Agriculture
- 2 Silk industry
- 3 Manufacturing

(G) The future of the Chinese people

## II The Japanese

- (A) Comparison of the Japanese Islands with the British Isles
  - 1 Location

2 Climate

3 Surface and formation

- (B) Characteristics and culture of the people
  - 1 Appearance

3 Fducation

2 Boxer Rebellion

2 Dress

- 4 Art
- (C) How the homes reflect the character of the people
- (D) Importance of religion in the life of the people
- (E) How the Japanese have made their country produce a living for their people
  - I Terracing and irrigation
- 4 Reforestation

2 Use of resources

5 Manufacturing

- 3 Crops grown
- (F) The future of the Japanese people

## III The People of India

- (A) Influence of religion upon the life of the people
- (B) Life among the people in India

813	SOME PEOPLES	OF THE WORLD
$I_{\Lambda}$	Some peoples of Africa	
	(A) The Bushmen  1 How they look	2 Life among them
	(B) The Hottentots  1 Mode of living	2 Amusements
	(C) Pygmies 1 Appearance	2 How they live
V	Some island peoples	
	(A) The Papuans  1 Appearance 2 Fishing and fighting	3 Customs and amusements
	(B) The Polynesians 1 Influence of religion	3 Music
	2 Games	4 Tattooing
VI	Some nomadic peoples	
	(A) Gypsies  1 Who they are 2 How they secure a living 3 Dress	4 Language, music, and art 5 Misrepresentation of the gypsy
	(B) Bedoums  1 Appearance and dress 2 How they live	3 How they are governed
VII	Some peoples of South America (A) Argentineans I Gauchos	(C) Peruvians Incas

- 2 People of Buenos Aires
- (B) Brazilians
- I Amazonian Indians
  - 2 People of R10 de Janeiro

- (D) Chileans
- (E) Patagonians

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## SUGGESTED PROBLEMS FOR THE TEACHER

- 1. China's effort to establish democratic government and preserve her independence
- 2 How Japan is developing into a world power
- 3 Problems facing the India of to-day
- 4 Class and racial differences in South America
- 5 How the different peoples of the world are being drawn more closely together

(c) How picked and prepared for market

(c) How picked and prepared for market

(c) How prepared and shipped to market

(d) How stored for "out seasons"

(d) How shipped

### SUGGESTED ACTIVITIES FOR CHILDREN

- Collect clippings and pictures from newspapers and magazines about China, Japan, India, and other countries you are studying. Use these as a basis to help you in a discussion of what is going on in these countries at the present time.
- 2 On a wall map locate the following China, Japan, India, Persia, Papua, Polynesia, Arabia, Greece, Turkey, Russia, Poland, and Czecho-Slovakia Determine how the location of these countries has influenced their development
- 3 Write and give a play or pageant showing the life of some of the peoples of the world which you have studied If possible, make characteristic costumes to wear Music, dances, and customs of these people will add greatly to your program

### HOW THE WORLD IS FED

## I Food from the soil

- (A) Fruit
  - I Homes of various fruits
  - 2 Apples
    - (a) Where grown
    - (b) How the trees are cared for
  - 3 Oranges
    - (a) Where grown
    - (b) How cultivated
  - 4 Bananas
    - (a) History of banana as a food
    - (b) Where and how grown
  - 5 Pineapples
    - (a) Where grown
    - (b) How cultivated and harvested
  - 6 Dried fruit
    - (a) Where fresh fruit is secured for drying
    - (b) How fruit is dried
      - 1 Special method for dates

### (B) Nuts

- 1 Peanuts
  - (a) How they grow and are cultivated
  - (b) How prepared for market
- 2 Walnuts
  - (a) Where grown
  - (b) Grafting and cultivation of trees
  - (c) Preparation for market
- 3 Pecans and almonds
  - (a) Where grown
  - (b) Annual output
- (C) Vegetables
  - I Prevalence of fresh vegetables on market during each season
  - 2 Importance of potato
  - 3 Other important vegetables
    - (a) Where grown
  - 4 Shipping

- (D) Tea
  - I The story of tea drinking
  - 2 What tea plants are like
  - 3 Where tea plants grow
  - 4 How raised and prepared for market
- (E) Coffee
  - I The story of coffee drinking
  - 2 How coffee grows
  - 3 How the berries are picked and prepared for market
  - 4 How the berries are cleaned, roasted, and packed
- (F) Cocoa
  - I What the cacao tree is like
  - 2 Gathering and preparing cacao
  - 3 How cocoa and chocolate are made from cacao
- (G) Sugar
  - I Where it comes from

- 5 How sugar is made from corn
- 2 How sugar cane is planted and harvested
- 6 Honey7 How sugar is made from maple sap
- 3 How raw sugar is refined
- 8 Annual output in the United States
- 4 How sugar is made from sugar beets
- (H) Spices
  - I What spice is
  - 2 Where grown
  - 3 Kinds
    - (a) Pepper, cinnamon, cloves, nutmeg, mace, allspice, ginger, mustard
  - 4 Our spice industry

## II Food secured by fishing

- (A) Cod fishing
  - I Where carried on
  - 3 Methods used in catching
  - 2 Cleaning salting, and drying
- (B) Salmon
  - I Where found
  - 2 How caught and prepared for market
- (C) Other salt-water fish
  - 1 Swordfish

3 Mullet

2 Herring

4 Tuna

- (D) Shell fish
  - 1 How clams are dug
    - (a) Canning of clams
  - 2 How lobsters are caught
  - 3 Scallops
    - (a) What they are
    - (b) How gathered and prepared for market
  - 4 Oysters
    - (a) History of oyster culture in the United States
    - (b) How gathered and prepared for market
    - (c) Protection by the government

- (E) Work of the United States Fish Commission
- (F) The fishing industry in other countries

### III Other sources of food

- (A) Poultry raising
  - I Extent of the industry
  - 2 Hatching and care of poultry
- 3 Raising of ducks, geese, and turkeys
- 4 Marketing of eggs

- (B) Dairying
  - 1 Breeds of cattle and where found
  - 2 Necessity for cleanliness
  - 3 Pasteurized and certified milk
  - 4 How milk is graded
  - 5 Evaporated and condensed milk
  - 6 Irradiated milk
  - 7 Butter making
    - (a) History of
    - (b) Extent of production in the United States
    - (c) How butter is made
  - 8 Substitutes for butter
  - o Ice-cream making
    - (a) Ingredients used
    - (b) How made
    - (c) Use of "dry ice" for packing
  - 10 Making of cheese
    - (a) History of cheese making
    - (b) How cheese is made
    - (c) Kinds of cheese
- (C) The cereal industry
  - т Wheat
    - (a) Conditions necessary for growth
    - (b) Where grown
    - (c) The wheat belt
    - (d) Use of machinery in the wheat fields
      - 1 Ploughing the soil
      - 11 Seeding
      - iii Harvesting
    - (e) Storing of wheat
      - 1 The grain elevator
    - (f) Making of flour
      - 1 Early methods
      - 11 Modern methods
      - m By-products
      - iv Important centers of flour making
    - (g) Macaroni, a wheat product
      - 1 Use of durum wheat
      - 11 How made
    - (h) Bread making
      - 1 Food value of bread
- iv Preparation for market
- 11 How made
- v Bread of other lands
- iii Machinery used

- 2 Corn
  - (a) Importance of crop
  - (b) Conditions necessary for growth
  - (c) Uses
  - (d) Canning of sweet corn
- 3 Rice
  - (a) Importance as a food for the world's population
  - (b) How rice is planted and cultivated
  - (c) How it is harvested
  - (d) Preparation for market
- 4 Other cereals
  - (a) Rye

(c) Barley

(e) Soybeans

(b) Oats

(d) Buckwheat

- (D) Meat packing
  - I Extent of livestock industry in the United States
  - 2 Areas where live stock are raised
    - (a) Practices in these areas
  - 3 Stockyards
    - (a) Centers
    - (b) Preparation of livestock for packing
    - (c) Curing and canning of meats
  - 4 By-products of meat packing
  - 5 Supervision by the government

## IV Preservation of food

- (A) Necessity for preservation
- (B) Early attempts
- (C) Modern methods
  - 1 Drying
  - 2 Refrigeration
    - (a) History of
    - (b) Principles upon which artificial refrigeration works
    - (c) Types of refrigerating machines
  - 3 Cold storage
    - (a) Plants
    - (b) Refrigerator cars
    - (c) Process of quick freezing
  - 4 Canning
    - (a) Principles upon which it works
    - (b) How foods are canned

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### SUGGESTED PROBLEMS FOR THE TEACHER

- I Factors that influence the growth of certain products in specific regions of the earth
- 2 Effects of introduction of modern machinery upon the production of foods
- 3 How the people of the world depend upon each other for food
- 4 Contributions of different countries to the food supply of the world

- 5 How supply and demand affect food prices
- 6 Effects of occi-production and how it is met. How it might be met
- 7 Why so many meat-packing centers have grown up in the central part of the United States
- 8 How the world production of wheat and corn affects market conditions
- 9 The part played by the fishing industry in feeding the world
- 10 How diversified farming is sometimes displaced by specialized farming
- II Efficiency and skill shown in picking and preparing certain foods for market
- 12 How and why food is stored for later consumption
- 13 Methods used in transporting foods
- 14 Changes in seasonal diet due to modern methods of food preservation
- 15 How the United States government protects its citizens against impure foods

### SUGGESTED ACTIVITIES FOR CHILDREN

- I Plan and serve a meal consisting either of foods grown only in your own locality or of those grown elsewhere
- 2 On a large outline map of the world, or on one which you make, show the following

Wheat belt Tea coffee, and cocoa regions Meat-packing centers
Corn regions Live stock area Other food regions

Tropical fruit regions

Use this map for a group discussion on the problem, "How factors of climate, surface, and soil affect food production in different parts of the world"

3 If possible, visit some of the following

A dairy A fish, vegetable, or fruit cannery A fruit, vegetable, or poultry farm A meat packing plant A bakery A chicken or fish hatchery

Make careful plans before you go so that you will have some things to look for Be sure to ask questions about things you do not understand while you are there. You might discuss the visit with each other when you return, or, perhaps, share what you have learned with another class or grade. You might be interested in keeping records of the trips that you take

- 4 Make a collection of the labels from cans, cartons, packages, etc in which food has been packed Make a list of the places from which your food has come See if you can locate these places on a map of the world How did they reach you?
- 5 Do one of the following

Make butter If you do not have a small churn, use a fruit jar and shake it until the butter comes

Get some rennet and put it into sweet milk Let it stand until it curds and then strain it and press into cheese

Make some peanut butter by grinding peanuts in a food chopper

Dry some fruit or vegetables either in the sun or the oven

Grind some wheat and make whole-wheat cookies. Then make some ice cream to serve with the cookies. One group could make the cookies while another makes the ice cream. Eat all the foods you have prepared and compare their taste with the taste of those that you buy

- 6 Select a special topic such as "tea or coffee raising" and report to your group on the subject
- 7 Select one product such as corn and find out about the products that are made from it
- 8 What things do you have in your home or school that are products of the meat-packing industry?
- 9 Write to different commercial companies for samples of their products and have an exhibit of food from different countries Be sure you know where each article comes from, how it is raised, etc
- 10 Find out how your community helps to feed the world

			MODERN MANUFA	CI	CURING
I	Fuel a	s the	basis of modern manufacturing		
	(A)	Woo	od as fuel		
	(B)	Coal	as fuel		
			How coal came to be		The coal industry
	(0)		Uses of coal	4	Substitutes for coal
	(C)		oleum		Dofning
			History How it is drawn from the earth	4	Refining (a) Products and by-products
			How oil is transported from place		1 Uses
		-	to place		
II	Fuel c	onve	rted into power		
	(A)	Wat	er		
	(B)	Stea	m_		
			Story		
			How the steam engine works		
	(C)	-	Effect on modern industry		
		Air	A 0-4		
	(D)		tricity What it is		
		2	The dynamo and how it works		
	(E)	The	internal-combustion engine		
III			materials necessary to modern manufact	ur	ing
		Iron			6
	()		Importance of iron in daily life	4	How it is made into steel
			How it is found in the earth		(a) Importance of steel industry
		3	Where and how it is mined		(b) Uses of steel
	(B)	Lum			
			Some important lumber regions of the	W C	orld
			How timber to be cut is selected How logs are cut and sent to the mill		
		3	(a) Camp life	(	(c) Log jams
			(b) Log drives	`	(-)
		4	How boards are made		
	(C)	Rub	ber		
		I	How rubber was discovered	_	
		2	Experiments with rubber by Mackinto	sh	and Goodyear
			(a) Vulcanization		

3 Latex and raw rubber
(a) What it is

(b) How it is collected

4 Rubber products
(a) Making a rubber mixture
(b) Making a mold or design

(c) Making the finished product
5 Synthetic Rubber

(c) How it is made into cured rubber

	(D)	Lea	ther		
	(1)		Preparation for tanning		
		_	(a) Salting		(b) Cleaning
		2	Tanning		•
			(a) The finished product		
	(E)	Woo	ol .		
		1	Where sheep are raised	2	(c) Making up flocks
			(a) Varieties		(d) Marking
		2	Sheeping on the ranges (a) Shearing	2	(e) Feeding How wool is bought
			(b) Dipping	3	11011 11001 15 5045110
	(F)	Cott			
	(-)		How and where cotton grows		
			The picking of cotton		
		3	Preparation for market		
	(G)	Sılk			
			History of silk		
			How the silkworm lives		
			Reeling and spinning of silk Scouring, bleaching, and weaving of sil	ŀ	
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11			ortant products of modern manufacturing	3	
	(A)	Pap	er Origin		
			Early paper making		
			Paper making to-day		
		Ŭ	(a) Materials used		
			(b) How paper is made from rags		
		-	Kinds of paper		
	(B)	Mat			
			Early matches The safety match		
		2	(a) How and where made		
	(C)	Pne	sumatic tires		
	(0)		Invention		
		2	TT .1		
	(D)	) Gla	ss		
			History of glass making		
			How glass is made		
	(17)	~	How cut glass is made		
	(E)	Chi	na Story of pottery	2	Some famous chinaware
		2	T	3 4	How china is made
	(F)	Rop	-	-1	
	(-)	I	77. 1		
		2	3.5 1		
			(a) Preparation of sisal and Manila	hen	np
			(b) Materials used		
			(c) How made		

## (G) Textiles

- 1 Processes used in manufacture of
- 2 Textile machinery
- 3 Kinds
  - (a) Cotton

- 3 (b) Worsteds and woolens
  - (c) Sılk
  - (d) Linen
  - (e) "Re-processed" and "Rc-used" Wool

## (H) Other products

- 1 Paints
- 2 Tobacco products
- 3 Precious gems

- 4 Shoes
- 5 Tin cans

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### SUGGESTED PROBLEMS FOR THE TEACHER

- I Factors that are essential to modern manufacturing
- 2 How these factors have caused certain manufacturing centers to develop
- 3 The importance of iron and steel in our daily lives
- 4 Interdependence of countries as a factor in industry
- 5 The contribution of the workers to the rest of the world
- 6 Relationship of employer and employee in industry
- 7 Necessity for conservation by industry of natural resources, such as coal, iron, oil, lumber
- 8 The use made of synthetic products in manufacturing
- 9 How types of manufacturing affect relations between countries
- 10 The significance of the term "Machine Age"

### SUGGESTED ACTIVITIES FOR CHILDREN

- I Make a list of the names of all the things you can find at home or school that are made of iron or steel. Use this list at school as a basis for discussion on the importance of iron and steel in our daily lives.
- 2 See how many names of products you can find that are made from coal Compare your list with others in the group
- 3 Dramatize the story of the manufacture of lumber
- 4 Make leather from the skin of some animal as a sheep or calf Make from the leather some articles that you can use, such as straps, purses, shoe-strings, mats, etc
- 5 If possible go on a trip to one of the following

A coal mine
An iron pit
A steel mill
A logging camp
A lumber mill
A pottery plant

A lumber yard

- 6 Make paper from either rags or wood pulp Use this paper for valentine, Christmas or other holiday cards
- 7 Make a group of pictures showing the processes involved in the manufacture of some product

- 8 Write to a rubber company and ask for information on the story of rubber Ask for a sample of raw rubber Make a piece of vulcanized rubber
- 9 Divide yourselves into groups and select one topic, such as giass or china making, to study intensively, and report your findings to the whole group for discussion
- 10 Secure more information regarding manufactured products by writing to companies which make them

### THE ISLAND POSSESSIONS OF THE UNITED STATES

- I The Hawanan Islands
  - (A) How the location of the Hawaiian Islands gives them importance
  - (B) Why tourists are attracted to these islands
    - 1 Surface
      - (a) Theory as to formation
    - 2 Climate
      - (a) Influence of northeast trade winds
  - (C) Why agriculture is such an important industry on the islands
    - 1 Leading crops
  - (D) How the United States government happens to control Hawaii
    - I Government of Hawaii under the United States
- II The Philippine Islands
  - (A) Why the location of the Philippines is not so favorable to the United States as that of Hawaii
  - (B) How these islands were formed
    - I Size and extent
  - (C) Kinds of people living on the islands
  - (D) Products
    - 1 Money crops 2 Food crops
  - (E) Government under control of the United States
  - (F) Invasion by the Japanese
- III Puerto Rico
  - (A) How the United States secured control of Puerto Rico
  - (B) How the United States government has provided for education on the islands
  - (C) How the government of the islands is carried on
  - (D) How the people make their living

Page References — THE NEW WONDER WORLD Vol VII, Pages 285-291

### SUGGESTED ACTIVITIES FOR CHILDREN

- I On an outline map of the world, color in the Hawaiian Islands, Puerto Rico, and the Philippines Study their location in regard to the following
  - (a) Nearness to the United States
  - (b) Nearness to centers of world trade
  - (c) Protection by the United States
  - (d) Use by the United States as coaling stations
  - (e) Ease of access by the United States
  - (f) Nearness to the continents of Europe and Asia

- 2 Write an advertising folder describing Hawaii so as to attract tourists
- 3 Find out all you can about the volcanoes of Hawan and report to your group
- 4 Either draw or paint pictures representing life or scenes on any of these islands
- Make a list of the ways in which these islands are helped by the United States, and another list of the ways in which they help the United States Use these lists as a basis for class discussion

### OUR NEIGHBORS ON THE NORTH

### I Canada

- (A) How Canada got its name
- (B) How the present government of Canada operates
- (C) Cities
  - I Importance of Quebec as a center of tourist trade
  - 2 How the location of Montreal has contributed to its development as a commercial center
  - 3 Toronto and Winnipeg as natural outlets for the commerce of Canada
  - 4 Location of Vancouver as a factor in its development
- (D) How Canada makes use of her natural resources
  - I Use of rich lands and waterways in the production of wheat
  - 2 Use of pasture lands for cattle and sheep raising
  - 3 Her forests as a basis for lumber, pulp, and paper industry
  - 4 Use of minerals
  - 5 Use of water for power
  - 6 The fishing industry
  - 7 Trade in furs
- (E) How the natural scemc beauties of Canada attract visitors

### II The Dominion of Newfoundland

- (A) Importance of its location
- (B) Fishing as the important industry

Page References — THE NEW WONDER WORLD Vol VII, Pages 293-300

## SUGGESTED PROBLEMS FOR THE TEACHER

- I What it means to Canada to be a member of the Commonwealth of Nations
- 2 The significance of the friendly relations that have prevailed between Canada and the United States during their history
- 3 The extent and development of the natural resources of Canada How the Canadian government has helped this development
- 4 How and why the population of Canada is distributed as it is
- 5 Why Canada attracts many tourists
- 6 Why Newfoundland has developed the fishing industry to such an extent
- 7 How certain sections of Canada reflect the life of the people who settled there
- 8 How the border line between the United States and Canada is controlled
- 9 How the United States and Canada share the Great Lakes How they take care of problems which arise
- 10 The contribution of Canada to the commerce and industry of the world

#### SUGGESTED ACTIVITIES FOR CHILDREN

- The Class
- 2 On an outline map of North America, or on one you make, locate the principal cities of Canada, and use the map to help you decide why cities have grown up in these locations. See if you can tell why they have not grown up in other sections of Canada.
- 3 Make an interesting map to illustrate how Canada has used both her land and water in transportation of products to markets
- 4 Find out all you can about Sir Wilfrid Laurier and his contribution to the development of Canada and make a special report to the class See The New Wonder World, Volume VII, Pages 295-296
- 5 Make a chart showing the differences and likenesses between the government of the United States and that of Canada
- 6 Read stories and books about life among the fishermen on the Grand Banks of Newfoundland

# Child Life in Holland

## PRIMARY GRADES

- I Kind of country Holland is
- II Use of dikes
- III Homes of the Dutch
  - (A) Red-tiled roofs and brightly painted walls
  - (B) Raftsmen's houses
- IV How the Dutch live
  - (A) Cleanliness
  - (B) Dress of children
  - (C) Dress of grown-ups
- V Dutch customs
  - (A) Welcoming the stork
  - (B) Presents for new babies
  - (C) Christening of babies

- (D) Keeping warm
- (E) How they sleep
- (F) How and what they eat
- (D) Wearing of mother's caps
- (E) At Christmas-time

Story Reference - The New Wonder World

The Boy Who Saved His Country

Vol VII, Page 318

Page References — THE NEW WONDER WORLD

I-V Vol VII, Pages 313-318, 397

Picture References - The New Wonder World

A Holland Milkmaid A Waterway in Holland The Little Dutch Girl (color) Vol VII, Page 310 Vol VII, Page 315 Vol VIII, facing Page 328

### THINGS FOR CHILDREN TO DO

- I Find out what a dike is Why do the people of Holland use dikes?
- 2 On a sand table or on the floor in the corner of your room build a Dutch scene Use clay, wood, and pasteboard Be sure to study pictures, and make your buildings, dikes, etc, the proper size
- 3 Build a Dutch playhouse, large enough for children to play in Find out what kind of a roof, windows, and doors you need Will you use electric lights? Will you have a doorbell? How will you heat your house?
- 4 Make furniture and utensils for the house such as cupboard beds, mattresses, candle sticks, clocks, and shelves
- 5 Grow some tulips or other flowers from bulbs to put into the windows of your house
- 6 When you play in the house give your family and children Dutch names
- 7 Make some stories and poems about the Dutch
- 8 Find all the pictures that you can about Holland and Dutch children Put them on the bulletin board or use them in a booklet on "Life in Holland"
- 9 Find some stories or poems about Holland to read Tell some of them to your class Here are some stories you might like

Katrına and Jan, Bailey

Skating Gander

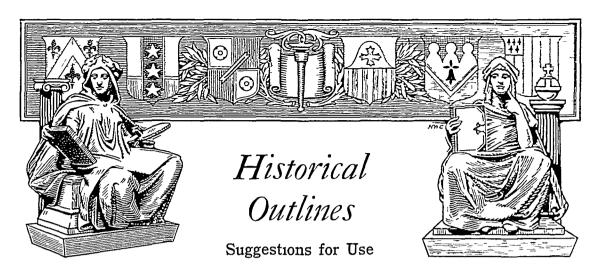
Little Pictures of Holland

Nan and Ned in Holland, Olmstead

Dutch Twins, Perkins Holland Stories, Smith

Perhaps your teacher will read you "A Skating Race in Holland" from "Hans Brinker," by Mary Mapes Dodge — The New Wonder World, Volume VIII, Pages 324–331

10 Make up a Dutch play or a moving picture Invite another grade to see you give it



THE following outlines of the subject matter of history cover the content of the field without regard to grade placement. Problems and activities for both the elementary and upper grades have been suggested, and teachers can adapt the material to the age, grade level, and ability of the children they teach. As an example, the smaller child will be interested in the kinds of animals that lived on the earth before history began, while the older child can go further into their classification.

In every case it is best to make the approach to any new unit through the experience of the child Children's questions and problems, and the activities suggested by them, are preferable to those in a formal outline, hence the ones in this volume are suggestive only

To give the child a feeling for time, it seems wise to keep some kind of a time line or record Several have been suggested in the outlines. Every class in history should have a live bulletin board which is managed by the children. It should contain pictures, maps, diagrams, etc., pertinent to the study being made, as well as material on history in the making now. Every opportunity should be taken to connect the history which is being studied with the child's experience and living

The teacher of history should provide material for wide reading, both informational and recreational Reading of stories and poetry can be made a happy and pleasurable part of history study Children should be encouraged to collect materials and reading matter to share with one another

The following outlines cover not only the subject matter of history, but also that of art, literature, and science connected with it Material for teaching these outlines can be found in The New Wonder World Page references and picture references are given at the end of each outline

# Ancient History

### PREHISTORIC MAN

- I The world before history began
  - (A) Myths explaining the creation of the world
  - (B) Ancient ideas of the creation and geography of the world
  - (C) Scientific explanation of the creation of the world
  - (D) Glacial periods
- II Animal life of the world before history began
  - (A) Evidences of life
  - (B) Kinds

- (C) Archeozoic
  - 1 Backboneless
- (D) Paleozoic
  - 1 Fish
  - 2 The swamp dwellers
- (E) Mesozoic
  - I Flying reptiles
  - 2 Dinosaurs
  - 3 Plant eaters
  - 4 Water reptiles
  - 5 Flesh eaters
  - 6 Birds with teeth
- (F) Cenozoic
  - 1 Mammals
    - (a) Their superiority

## III Early man

- (A) Sources of information
  - 1 Neanderthal man
    - (a) Skeleton remains in caves
  - 2 Paleolithic man
    - (a) Skeleton remains of the Pleistocene or Glacial period
    - (b) Remains of tools and weapons
      - 1 Materials used
      - 2 Kinds made
      - 3 Use for protection and hunting
    - (c) Characteristics of lower, middle, and upper Paleolithic man
- (B) Beginnings of the White, Negro, and Mongolian races
  - I Conflict with the Neanderthal races
  - 2 Improvement in tools and weapons
- (C) Art of upper Paleolithic man
  - I Cave paintings and drawings
  - 2 Carvings
  - 3 Music
- (D) Neolithic man
  - i "Barrows" as a source of information
  - 2 The Lake Dwellers
  - 3 Use of fire
    - (a) Smelting of ores
    - (b) Making of bronze
    - (c) Adoption of iron for tools
    - (d) Cooking of food
  - 4 Change from hunting to agriculture
    - (a) Domestication of animals
    - (b) Cultivation of soil
  - 5 Use of metals
  - 6 Language
  - 7 Homes
  - 8 Religion

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How the Hare Deceived the Tiger	Vol V, Pages 100-103
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Why the Chipmunk Has Stripes on His Back	Vol V, Page 114
Creation Myth of the Crow Indians	Vol V, Pages 118-121
Why Noses Differ	Vol V, Page 120
The Birthday of Japan	Vol V, Page 121
Creation Story of the Parsis	Vol V, Page 123
Norse Idea of How the World Was Made	Vol V, Page 124
How All the Animals Tried to Make Man	Vol V, Page 127
The Babylonian Creation Story	Vol V, Page 128
Mount Tacoma and the Story of Eve	Vol V, Page 120
How Coyote and the Animals Helped the Indian to Get Fire	Vol V, Page 130
The Making of Man by Prometheus	Vol V, Page 134

## PROBLEMS FOR STUDY - Elementary Grades

- What are some ways in which early man used fire? How do you think he might have discovered it? What difference would it make in our lives to-day if man had not discovered how to use fire and to smelt ores?
- 2 Why was it a big step in civilization when man began to till the soil, domesticate animals, and build a permanent home?
- 3 Can you give a reason why man used copper before he used iron?
- 4 Are there any communities of the present time where there is a life similar to that of primitive man?
- 5 Of what value to us are the cave drawings and remains of primitive tools and weapons of early man?

## PROBLEMS FOR STUDY — Upper Grades

- I What evidences are there that prehistoric man existed?
- 2 Show that prehistoric man was the victim of his environment
- 3 Which kind of life of prehistoric man represents the greatest step in a higher civilization nomadic, agricultural, or hunting? Why?
- 4 How did the invention of sharp-edged tools and weapons change man's life?
- 5 Of what importance to our civilization is the fact that man early learned to live in communities? Why did early man desire tribal life?
- 6 Consider the economic needs of primitive man as compared with ours Do you think he was more or less inventive than men of to-day? Why?

### SUGGESTED ACTIVITIES

- I If possible, visit a museum to see relics of prehistoric man
- 2 Find out if any remains of a primitive civilization have been found in your neighborhood
- 3 (a) Read these stories in Volume Five, The New Wonder World How They Got Fire at Puget Sound

The Indian Gets Fire

- (b) Make fire in the primitive manner
- 4 Read the story, "A Wonderful Discovery by A Child," (THE NEW WONDER WORLD, Volume One) and draw pictures of animals, objects, and activities about you as primitive man would have drawn them
- 5 Write a story that might account for one of the following discoveries by early man
  - (a) How to use fire
  - (b) How to tame animals
  - (c) How to cook food
  - (d) How to smelt ore
  - (e) How to float on a log on water
- 6 Make some of the following
  - (a) Models of different types of homes built by early man
  - (b) Tools or weapons of early man
  - (c) A dress of skins
  - (d) A pottery bowl, jar, cooking utensil or dish (VI, 363-370)
  - (e) A piece of woven or plaited cloth (VI, 349-354)
- 7 Make a series of pictures (draw or paint) showing one of the following
  - (a) How early man's methods of securing food, shelter, and clothing changed
  - (b) Change in types of shelters used by early man
  - (c) Results of discovery of fire
  - (d) The world before history began

- 8 Try to talk to your class, using only guttural sounds, signs, and grimaces Have them interpret
- 9 Write a story in sign language Have the class interpret
- For a review collect all the materials you have (writing, drawing, etc.) for a class or individual book. This can grow into a record of the year's work,

or

Write a summary on

The Contribution of Prehistoric Man to Man's Learning and Living

## Earliest Civilizations

### THE EGYPTIANS

- I Center of civilization in the Nile Valley
  - (A) Description of the river Nile
  - (B) Veneration of the Nile by the Egyptians
  - (C) Influence of the Nile on Egyptian civilization
- II Sources of information about Egypt
  - (A) Archæological discoveries
    - The Rosetta Stone
    - 2 Implements, weapons, tools, vases, chariots, etc
    - 3 Mummies and tombs
    - 4 Rolls of papyrus
      - (a) Importance of Champollion's translation of the Rosetta Stone
      - (b) Records found on papyrus rolls

## III Life in Egypt

- (A) Government
  - I Tyranny of the Khafre and the Pharaohs
    - (a) Slavery
  - 2 Division of the people into classes
    - (a) Wealth of upper classes
      - 1 Payment of taxes in goods
- (B) Occupations
  - I Masonry and building
    - (a) The pyramids
    - (b) Temples
    - (c) The Sphinx
    - (d) Obelisks
  - 2 Bronze and gold making
  - 3 Paper making
  - 4 Shipbuilding
  - 5 Weaving
  - 6 Making of pottery
  - 7 Ivory and stone carving
  - 8 Agriculture
    - (a) Primitive means
    - (b) Influence of the people of Syria
      - 1 Use of irrigation canals and ditches
  - o Trade
    - (a) Barter as a means of exchange

- (C) Religion
  - Belief in many gods

- 2 Belief in life after death
- 3 Burial customs

- (D) Writing
  - I Use of ink and pen
  - 2 Use of papyrus as paper
- 3 Early use of crude symbols
- 4 Evolution of an alphabet

- (E) Use of calendar
  - I The Nile as a means of fixing dates
  - 2 Telling time
  - 3 Use of astronomy
- (F) Art
  - Pottery making
    - (a) Brilliant colorings
  - 2 Sculpture
    - (a) Stone carvings on pyramids
    - (b) Stone cutting on temples
    - (c) Statues of the dead
    - (d) Wooden models of relatives and servants of the dead
    - (e) Reliefs on tombs
    - (f) Statues of animals, highly colored
  - 3 Drawing and painting
    - (a) Decoration of tombs
      - 1 Subjects from daily life activities
      - 11 Brilliant colorings
  - 4 Music
    - (a) Chorus singing
    - (b) Use of lyre, harp, flute, and cymbals

## IV History of Egypt

- (A) Age of the civilization
  - 1 Beginnings of the Paleolithic era
- (B) Invasion by people of Syria about 5000 B C
- (C) The First Dynasty 3000 B C
- (D) The rule of the Pharaohs
- (E) Conquest of Arabia by Rameses II
- (F) Invasion of the Babylonians
  - I Fall of Egypt

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III Vol I, Pages 300-303, Vol VII, Pages 5-9
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(B8) Vol IV, Page 366
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### THE BABYLONIANS

- I Political History of Babylon
  - (A) First center of civilization in the valley between the Tigris and Euphrates Rivers
    - 1 The Sumerian community
    - 2 Invasion by hostile tribes
    - 3 Growth of city of Babylon
  - (B) Reign of Hammurabi
    - 1 Attention to affairs of government
  - (C) Invasion of the Assyrians
    - I Rule of the Assyrians
  - (D) Invasion by the Chaldeans
    - I Rule of Nebuchadnezzar
      - (a) Rebuilding of the city
  - (E) Subjugation of Babylon by the Romans
- II Life in Babylon
  - (A) Homes and buildings
    - I Early mud huts of the Sumerians
    - 2 Use of brick for building
    - 3 Roads and bridges
    - 4 Palaces and buildings of Nebuchadnezzar's time
      - (a) The "Hanging Gardens"
  - (B) Government
    - I Tribal leadership of the Sumerians
    - 2 Code of laws under Hammurabi
    - 3 Harsh rule of the Assyrians and Chaldeans

- (C) Agriculture
  - 1 Use of irrigation
  - 2 Raising of grains
- (D) Writing
  - I Use of clay tablets
  - 2 Use of flat reed stylus
  - 3 Use of cuneiform symbols

Page References — THE NEW WONDER WORLD
I-H Vol VII, Pages 10-11

Picture References - THE NEW WONDER WORLD

#### Volume VII

Ancient Roaring Lion of Babylon Babylonian Cuneiform Writing

Story References — THE NEW WONDER WORLD

The Babylonian Creation Story Vol V, Pages 128-129
The Babylonian Food Story Vol V, Page 120

## CONQUEST OF BABYLONIA AND EGYPT BY THE ASSYRIANS

- I Location of Assyrian Empire
  - (A) Greatness of capital city, Nineveh
- II Strength and efficiency of army
- III Conquest of Babylonia and Assyria
  - (A) Treatment of conquered peoples by the Assyrians
- IV Coming of the Chaldeans
  - (A) Fall of the Assyrian Empire

Page References — THE NEW WONDER WORLD
I-IV \lol \lol \lol II, Page 12

Story References — THE NEW WONDER WORLD
Ur The City That Saw the Flood Vol I, Page 305

### THE HEBREWS

- I The wanderings of the Hebrews
- II Leadership of Moses
- III Reign of Saul and David
- IV Reign of Solomon
  - (A) Extravagance of living
    - I Division into Kingdom of Israel and Kingdom of Judah
  - V Conquest of Israel by the Assyrians

PAGE II

- VI Conquest of Judah by the Chaldeans
  - (A) Conquest of the Chaldeans by the Persians
    - I Return of the children of Judah to Jerusalem
- VII Contribution of the idea of one God to civilization

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I-VI Vol VII, Pages 14-15

#### THE PHŒNICIANS

- T A nation of seamen
  - (A) Advantages for fishing and trading
- II Growth of trade with the Mediterranean countries
- III First venture through the "Pillars of Hercules"
  - (A) Communication with the Britons
  - (B) Recognition by Britons of the value of tin
- IV Voyage of Hanno
  - (A) Route from Carthage to Morocco
  - (B) Attempt to capture slaves above the Gambea River
  - (C) Burning of forests by natives
  - (D) Reaching "farthest south" (for any white man) Liberia
  - V Invention of the alphabet
    - (A) Need for trade and records
    - (B) Combinations of Egyptian hieroglyphics and Babylonian cuneiform
    - (C) Spread of alphabet to Greece and Rome

Page References — The New Wonder World
I-V Vol VII, Pages 13-14

### PROBLEMS FOR STUDY - Elementary Grades

- I Why do we sometimes call Egypt and Babylonia the "ciadles" of civilization?
- 2 What are some of the present-day occupations of people that had their beginnings in these early civilizations?
- 3 Find out all you can about Phanician boats What part did the Phanicians play in spreading
- 4 Why did the Egyptians embalm their dead?
- 5 Can vou name one idea or thing that we have to-day that came from each of the following early civilizations?
  - (A) Egyptian

(C) Hebrew

(B) Babylonian

(D) Phænician

## PROBLEMS FOR STUDY - Upper Grades

- I Study carefully the location of the Euphrates, Tigris, and Nile Valleys Why did the earliest civilizations develop here? Can you see disadvantages?
- 2 Show how the religious ideas of these early peoples influenced the type of civilization they developed

- 3 What is meant by division of labor? How was it practiced by these early peoples?
- 4 Of what significance to us is the fact that the Hebrews built a civilization about the idea of one God?
- 5 How did it happen that peoples with a state of civilization as high as that of these early peoples, could be conquered by the crude, but hardy mountaineers and desert dwellers?

### SUGGESTED ACTIVITIES FOR CHILDREN

- Start a time line This can be done in many interesting ways such as the use of a ladder, circle, clock, etc. A simple one for your notebook is a straight horizontal line marked off in centuries from the earliest known date in history. For a class time line stretch a long piece of brown wrapping paper across one section of the room. Mark off in the same manner as for your individual one. Pictures, preferably those drawn and colored by you or your class, make your time line attractive. Another way to do this is to fold a long strip of paper into equal lengths, one for each century, and make a cover for it, so that you have a book. On one side of the paper you can place important dates and happenings and on the other side pictures you have drawn or collected. Keep this time line up-to-date by adding the important events of each century as you study your history. Keep the present century up-to-date by following news items in papers, magazines, radio talks, etc., and selecting important things that are happening to-day
- 2 Begin a map showing how civilization spread Use an outline map or sketch a map freehand A large class wall map is very much worth-while. As you study the growth of civilization, indicate by using different colors the centers of civilization at different periods of history. In this way you can also learn place names that have been important in the development of our present civilization. Another way to do this is to make a series of maps showing each center of civilization as prehistoric, earliest, ancient, etc. For this unit show the following on your map
  - (a) The Tigris, Euphrates, and Nile Rivers
  - (b) Outlines of the location of these early civilizations
  - (c) Mediterranean Sea and Atlantic Ocean
  - (d) Egypt
  - (e) Palestine
  - (f) Assyria
  - (g) Carthage
  - (h) Babylonia
  - (1) Morocco
  - (J) Trade routes followed by the Phænicians
- Begin a pictorial chart showing the important contributions of each civilization to man's learning and living. This together with 1 and 2 might be group projects to be carried out during your study of the growth of civilization. Divide your class into three groups, one group working on 1, one on 2, and one on 3. These groups can be interchanged from time to time
- 4 Collect and have an exhibit of pictures that represent these civilizations Collect pictures and clippings about modern Egypt and Palestine from magazines and newspapers to show contrast in life then and now
- 5 Prepare a talk to give your class on one of the following
  - (a) Stories told by pictures of ancient Egypt(b) How a pyramid was constructed
  - (c) Development of the alphabet
  - (d) The especial contributions of early Hebrew civilization
  - (e) The arts of early civilizations music, painting, sculpture, architecture
  - (f) Irrigation in ancient Egypt
  - (g) Road building in Babylon
  - (h) The "Hanging Gardens"

- (1) Hammurabi's Code of Law
- (1) Archæological discoveries in the valleys of the Nile, Tigris, and Euphrates

(Material on the above topics can be found in The New World World World World IV, V, and VII See also the General Index, Volume XI, for definite references to special topics)

- 6 Make one of the following
  - (a) A map of the world as the Egyptians, Babylonians, and Phœnicians knew it Use to show your class how it compares with the world as we know it
  - (b) A map of clay or flour and salt that will explain how the geography of the Nile river favored the growth of civilization
  - (c) Models or pictures of boats used by the Phænicians
  - (d) A series of pictures showing different types of buildings used by these early peoples
  - (e) A series of pictures showing different kinds of dress, customs, etc
  - (f) An Egyptian scroll Use thin brown paper and paste together like papyrus Write a story on the scroll, using picture writing
  - (g) A Babylonian clay tablet Write in cuneiform characters on the tablet
  - (h) A chart showing the development of the alphabet
  - (i) A model of a pyramid, an obelisk, a mummy case, or an Egyptian tomb (You can carve these from white soap)
  - (1) An example of Egyptian pottery
- 7 Read stories from the Old Testament and find Bible verses that will explain the religion of the Hebrews
- 8 As a review have a play representing life during the earliest civilization of mankind, or, Collect your materials to add to your book on "The Growth of Civilization," or, Write a summary on "Contributions of Early Civilizations to Mankind"

#### STORIES FOR CHILDREN TO READ FROM "THE NEW WONDER WORLD"

The Babylonian Creation Story Vol V, 128
The Babylonian Flood Story Vol V, 129
Ur, the City That Saw the Flood Vol I, 305

# **Ancient Civilizations**

#### THE PERSIANS

- I Origin of the Persians
  - (A) Branch of the Indo-Europeans
  - (B) Early center of civilization, northeast of the Euphrates and the Tigris
  - (C) Under rule of the Medes
    - I Conquest of the Medes by Cyrus the Great
- II Invasion of Asia Minor by Cyrus
  - (A) Conquest of Lydia
  - (B) Conquest of Babylon
  - (C) Conquest of Egypt
- III Establishment of the great Persian Empire

## IV Civilization of the Persians

- (A) Adoption of customs and ideas of other people
  - I Military tactics from the Assyrians
  - 2 Use of money from the Lydians
  - 3 Writing from the Babylonians
- (B) Religion
  - 1 Followers of Zoroaster

Page References — THE NEW WONDER WORLD
I-IV Vol VII, Pages 17-18

### THE GREEKS

- I Conquest of the Ægeans
  - (A) Adoption of Ægean customs
  - (B) Occupation of the peninsula which is now Greece
- II How the geography of Greece influenced Greek civilization
  - (A) Mountains and valleys
    - I A united nation impossible
    - 2 Many small independent city states
    - 3 No trade between small states
    - 4 Growth of farming and sheep-herding
    - 5 Development of independence and self-reliance
    - 6 Narrow ideas and interests
  - (B) Harbors and location near the sea
    - I Development of trade
    - 2 Spread of Greek civilization by means of colonization
  - (C) Climate and beauty of country
    - I Growth of love of beauty in all forms
- III How the Greeks' love of beauty expressed itself
  - (A) Greek literature
    - I Myths and legends
      - (a) Expression of their religion, life, government, and ideals
    - 2 The Iliad and the Odyssey
      - (a) Story of the Trojan War
      - (b) Expression of Greek idea of manhood
  - (B) Greek sculpture
    - 1 Expression of Greek religion
    - 2 Influence on sculpture of the world
    - 3 Work of Myron, Pheidias, and Praxiteles
    - 4 Famous statues
      - (a) Venus de Milo
      - (b) Hermes
    - 5 Tanagra terracotta statuettes
    - 6 Contribution of Greek sculpture to the world
      - (a) Beauty of harmony and line
      - (b) Addition of grace and dignity to art

- (C) Greek architecture
  - r Erection of temples in honor of gods and goddesses
  - 2 Use of Ionic, Doric, and Corinthian columns
  - 3 The Parthenon
    - (a) Faultlessness of harmony and structure
    - (b) Decorative features
      - 1 Pediments and frieze
  - 4 The Erechtheum
    - (a) Porch of the Maidens
  - 5 Influence of Greek architecture
    - (a) Use of columns, moldings, and Greek ornament all over the world
- (D) Greek music
  - I An expression of daily life
  - 2 Influence of Olympic Games on creation of music
  - 3 Influence of the theater in developing music
  - 4 Use of the lyre and of Pan's pipes

## IV Religion of the Greeks

- (A) Belief in immortal super-man
- (B) Mount Olympus
- (C) Influence of gods on daily life and activity
- (D) Belief in oracles

## V The Olympic Games

- (A) Importance in Greek life
  - I The Olympiad as a measure of time
- (B) Story of the games
- (C) Influence on present-day life

### VI City-states of Greece

- (A) Athens
  - I Emphasis upon cultivation of the mind
  - 2 Life in Athens
    - (a) Slavery
    - (b) Leisure and wealth of the nobles
    - (c) Life of the poorer classes
  - 3 Demand of the lower classes for protection
    - (a) Solon's Laws
      - 1 Granting to common people of right to vote
  - 4 Development of a democracy
    - (a) Meaning of democracy
  - 5 Improvement in education, government, and living under Pericles
- (B) Sparta
  - I Emphasis upon military training
    - (a) Training of Spartan youth
  - 2 Simplicity of Spartan life

## VII Political history of Greece

- (A) Persian wars
  - I Sending of messengers by Darius to Athens and Sparta
  - 2 Sailing of Persian fleet out of the Hellespont
  - 3 March of Persian army through Thrace

- 4 Defeat of the Persians
  - (a) Death of Pheidippides
- 5 Xerxes' campaign
  - (a) Preparations
  - (b) His army
  - (c) Union of Sparta and Athens
  - (d) Bravery of Leonidas
  - (e) Success of the Persians at Thermopylæ
  - (f) Abandonment of Athens by its citizens
  - (g) Battles of Salamis and Platea
    - 1 Defeat of the Persians
- (B) Age of Pericles
  - I Rebuilding of Athens
  - 2 Danger from the jealousy of the Spartans
  - 3 Building of the Acropolis
  - 4 Development of the theater
    - (a) Theater of Dionysus
  - 5 Development of education and democracy
  - 6 War with Sparta
    - (a) Plunder of Spartan coast by Athenians
    - (b) Sparta's revenge on Athens
    - (c) Defeat of the Athenians
- (C) Conquest of Alexander the Great in Persia
  - I Rise of Macedon
  - 2 Conquest of Greece by Philip of Macedon
  - 3 Revolt of the Greeks
    - (a) Burning of Thebes
  - 4 Attack on Persia
    - (a) Cutting of the Gordian knot by Alexander
    - (b) Battle of Issus
    - (c) Battle of Arbela
    - (d) Defeat of Persia
    - (e) Death of Alexander
    - (f) Division of the empire into three kingdoms

## VIII Great men of Greece

- (A) Philosophers
  - i Socrates
  - 2 Plato
  - 3 Aristotle
  - 4 Epicurus
- (B) Dramatists
  - 1 Æschylus
  - 2 Sophocles
  - 3 Euripides
- (C) Historians
  - 1 Herodotus
  - 2 Xenophon

- (D) Demosthenes, the orator
- (E) Solon, the lawgiver
- (F) Scientists
  - 1 Archimedes
  - 2 Galen
  - 3 Euclid
  - 4 Hipparchus
  - 5 Hippocrates
  - 6 Thales

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VI	Vol VII, Pages 21, 26, 33-34		Vol	II, Page 35, Vol VII, Page 21

### Picture References - THE NEW WONDER WORLD

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## Story References - THE NEW WONDER WORLD

Troy, a Cross Section of History (chart)	Vol I, Pages 306, 307
The Making of Man by Prometheus	Vol V, Pages 134-135
The Siege of Troy, as retold by Church	Vol VIII, Pages 153-161
The Minotaur, in version of Nathaniel Hawthorne	Vol VIII, Pages 161-174
Perseus, as retold by Kingsley	Vol VIII, Pages 174-191

## THE ROMANS

## I History of the early Romans

- (A) Uncertainty as to founding of Rome
  - 1 Story of Romulus and Remus
  - 2 Branch of Latin tribe of Italy
- (B) Location of early Rome
- (C) Conquest of the Etruscans
  - 1 Valor of Caius Mucius

- (D) Conquest of Greece
  - I Invasion by Pyrrhus and his elephants
  - 2 Retreat of Pyrrhus
    - (a) Fall of Tarentum
    - (b) Rome, Mistress of Italy

## II Civilization of the Romans

- (A) Life in Rome
  - I Classes of people
    - (a) Patricians
    - (b) Pleberans
    - (c) Slaves
  - 2 Homes and buildings
    - (a) Use of water supply and heating systems
    - (b) Use of Forum for public affairs, business, and religious festivals
    - (c) Roman baths and aqueducts
    - (d) Roman temples and amphitheaters
  - 3 Perfection of tools and implements for agriculture
  - 4 Importance of the Roman Army
  - 5 Development of new implements of warfare and highly specialized methods of protection and attack
  - 6 Building of roads, tunnels, and bridges
- (B) Roman government
  - I First rule of kings
  - 2 The Roman Republic
    - (a) The power of the consul
    - (b) The assembly
    - (c) The Senate
  - 3 The Roman Empire
    - (a) Supreme power of emperor
    - (b) Reformation of government under Julius Cæsar
    - (c) Assessment of property for taxes under Augustus
    - (d) Granting of Roman citizenship to people of the province
    - (e) Right of common people to have cases tried in court
- (C) Religion of the Romans
  - I Belief in many gods
    - (a) Festivals and ceremonies
  - 2 The Forum as the center of religious activity
    - (a) Temple of Vesta, Vestal Virgins
  - 3 Similarity to Greek gods
    - (a) Roman names
  - 4 Sacrifices of Romans to gods
  - 5 Belief in oracles
  - 6 Beginnings of Christianity in Rome
    - (a) Birth of Jesus Christ in Nazareth
    - (b) Spread of Christianity through Paul's teachings and efforts of early Christians
    - (c) Adoption of Christianity by Constantine the Great
    - (d) Christianity the religion of the empire

- (D) Rome and the arts
  - I Adoption of Greek ideas and those of other Mediterranean peoples
  - 2 Music
    - (a) Brass instruments for military purposes the trumpet
    - (b) Use of flute for festival occasions
    - (c) Perfection of the pipe organ
      - 1 Use of water motor
    - (d) Interest in singing
  - 3 Painting
    - (a) Development of light and shade by Pompenans
    - (b) Use of perspective
  - 4 Sculpture
    - (a) Lack of artistic feeling
    - (b) Size and decorativeness important
    - (c) Copying of Greek sculpture
    - (d) Excellence of Roman picture sculpture
    - (e) Reliefs
      - 1 Trajan's column
- iii Arch of Constantine
- 11 Arch of Titus
- (f) Decorative use of garland, Cupids, and masks
- 5 Roman building
  - (a) Roman ships

- (d) The Pantheon
- (b) Use of arch, dome, and axis
- (e) Circus Maximus

(c) The Colosseum

1 Gladiatorial fighting

## III Political history of Rome

- (A) Rule of the Etruscan kings
- (B) Republic of Rome
  - I Conquest of the Etruscans
  - 2 Conquest of the Greeks
  - 3 War between Rome and Carthage
    - (a) Early defeat of the Romans
    - (b) Surrender of Sicily by the Carthaginians
    - (c) Invasion of Italy by Hannibal
    - (d) Invasion of Africa by the Romans
    - (e) Plundering of Carthage
      - 1 Death of Hannibal
    - (f) Recovery of Carthage
    - (g) Declaration of war by Rome
    - (h) Destruction of Carthage
- (C) Reign of Julius Cæsar
  - I The "First Triumvirate"
  - 2 Conquest of Gaul
  - 3 Invasion of Britain
  - 4 Cæsar crosses the Rubicon
    - (a) Flight of Pompey into Egypt
    - (b) Assassination of Pompey
  - 5 Proclamation of Cæsar as Dictator
  - 6 Government under Cresar
  - 7 Slaying of Cæsar
- (D) The "Second Triumvirate"

- (E) The Augustan age
  - I Supreme power of the emperor
  - 2 Area of his empire
  - 3 Prosperity of the people
  - 4 Magnificence and power of Rome
  - 5 Amusement and life of the people
  - 6 Hiring of soldiers for the army
- (F) Reign of the "Barrack Emperors"
- (G) Division of the Empire by Diocletian
- (H) Conquest of Rome by the Barbarians
  - I The Huns
  - 2 The Goths and Visigoths
  - 3 Invasion of Italy by Alaric
  - 4 Spread of Germans into the Spanish peninsula and Morocco
  - 5 Declaration of Odoacer as king of the Roman Empire

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## Story References - THE NEW WONDER WORLD

### Ancient Civilizations

#### PROBLEMS FOR STUDY - Elementary Grades

- I How did the ancient peoples adapt and use what the earliest men had discovered?
- 2 Show how the life of these ancient peoples was influenced by their religious beliefs
- 3 Are there any buildings in your community that show Grecian influence?
- 4 What games that you play in school are similar to the ones that the Greeks and Romans played?
- 5 What do we mean by a democracy? What beginnings of a democracy can you find in Greece and Rome?
- 6 Can you explain why two states with such different ideals as Athens and Sparta could grow up so near to each other?
- 7 What do you think was the greatest contribution to us from the Greeks? The Romans?

## PROBLEMS FOR STUDY — Upper Grades

- I Of what value to us is the mythology of Greece and Rome?
- 2 Why was it necessary in ancient times that great orators should develop? In our time is there anything similar to the oratory of these ancient peoples?
- 3 How did slavery in both Greece and Rome affect Labor?
- 4 Compare the idea of democracy as developed by the Romans with the ideas of the piesent time
- 5 What was Rome's greatest contribution to her conquered peoples?
- 6 Of what importance to civilization is the fact that Constantine the Great embraced Christianity?

#### SUGGESTED ACTIVITIES

- on your time line place important happenings, show the expansion of Europe on your map, and add to your pictorial chart the Roman and Grecian contributions to man's learning. If you have not already started these, refer to the outline at the end of ancient history
- 2 Collect all the examples of Greek and Roman sculpture, painting, and architecture that you can find Make a booklet for your school library on "Grecian and Roman Art"
- 3 Make a booklet on "The Influence of Greece and Rome on the Present Civilization" Collect materials of the following types Pictures of buildings and sculpture of the present that show Grecian influence, advertisements and other pictures that refer to Greek and Roman mythology, words that have come to us from the Latin and the Greek, modern stories or parts of stories that make allusions to Greek and Roman heroes or mythological characters
- 4 Imagine yourself an ancient Greek or Roman and write one of the following

A diary of a Patrician for a week

An account of a Spartan's training as told by his mother

An account of the daily life of an Athenian child written by himself

A description of a gladiatorial fight by an eyewitness

A Greek boy's or girl's account of the First Olympiad

An account of a speech made by Socrates

A description of Cæsar's Roman legions

A Roman boy's school program for one day

A Greek soldier's account of the Battle of Marathon

An account of a Greek play that you have seen

- 5 Compare the Greek city-state with a city of to-day A graphic chart will be helpful
- 6 Make one of the following

Model of a Roman house

A drawing or picture showing the dress of the Greeks and Romans

A calendar like the one used in Cæsar's time

A Greek temple — (model to be made from clay or soap)

Models or pictures of the different orders of Greek architecture

- 7 Have a story hour in which each member of the class tells a Greek or Roman story either from mythology or from the many hero stories that can be found
- 8 As the history of both Rome and Greece are closely connected with the stories of their great men, it would be a good thing to make a gallery of great men of Rome and Greece Discuss with your class whom you shall put in the gallery
- 9 As a review divide your class into two groups and write and give two plays, one of Greek life and one of Roman life or

Have a debate to try to decide which of the two nations contributed the most to our present civilization. This is an especially good topic for debate because their contributions were different.

# Medieval History

## CHARLEMAGNE AS EMPEROR OF THE ROMAN EMPIRE

- I Forerunners of Charlemagne
  - (A) Clovis accepts Christian religion
  - (B) The "Do Nothing Kings"
- II Reign of Charlemagne
  - (A) Subjugation of the Saxons
  - (B) Invasion of Italy by the Pope's request
  - (C) Defeat of Moors and capture of Spain north of Ebro river
  - (D) Coronation as "Emperor of the Romans" by Pope Leo III at St Peter's Church
  - (E) Division of his Lingdom into counties
  - (F) Interest in education
    - I Founding of schools the Palace School Alcuin, teacher from abroad
  - (G) Improvements under Charlemagne
    - I Building of roads and churches
    - 2 Building of canal connecting Rhine and Danube
    - 3 Establishment of a mint
- III Death of Charlemagne
  - (A) Division of his kingdom into three parts
- IV Crowning of Otto by the Pope
  - (A) The beginning of the "Holy Roman Empire"

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I-IV Vol VII, Pages 53-55

Picture References - THE NEW WONDER WORLD

Charlemagne's Empire (map)

Vol VII, 53 Vol VII, 55

## THE COMING OF THE VIKINGS

- I Their place in European history
  - (A) Practice of piracy
  - (B) Siege of Paris
  - (C) Land given to Rollo by the Franks
    - I Founding of Normandy

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Vol IV, Pages 205-206

Picture References - THE NEW WONDER WORLD

The Vikings Sailing through the Drifting Mist (color)

\ol I\, facing \_6

#### SPREAD OF MOHAMMEDANISM

- I Beginnings of Mohammedanism
  - (A) Mohammed's life
  - (B) The Koran
  - (C) Oath of allegiance to Islam
- II Spread of Mohammedanism to Africa
- III Invasion of Europe
  - (A) Battle of Tours

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I-III Vol VII, Pages 57-58

## THE CHURCH IN THE MIDDLE AGES

- I Missionary zeal of the early Christians
- II Christianity the Universal Church of the Middle Ages
- III Organization of the church
- IV Hermits of the early church
  - (A) Growth of monasteries under Benedict
    - 1 Life in a monastery
    - 2 Value of monasteries to civilization
  - V Growth in wealth and power of the church during the Middle Ages

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## THE CRUSADES

- I Capture of the Holy Land by the Mohammedans
- II Invasion of Asia Minor by the Turks
- III Enthusiasm for the Crusades
- IV Taking of Jerusalem by the Christians under Count Raymond
- V The Royal Crusade, led by Richard the Lion-hearted
- VI Results of the Crusades

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## MEDIEVAL TRADE

- I Ways and means of travel
- II Danger from robber barons
- III Effect of Crusades on trade
- IV Growth of the seaports of Italy Venice, Genoa
- V Formation of the Hanseatic League
  - (A) The Novgorod Fair
- VI Growth, and then decline of the League

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### FEUDALISM

- I Classes of people in the Middle Ages
- II Life on a manor
- III Life in a castle
- IV Knighthood

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## THE RENAISSANCE

- I Influence of the Crusades
- II Revival of art, literature, science, and education
- III Beginnings of the native languages
- IV The arts during the Renaissance
  - (A) Influence of the guilds
  - (B) Miracle and mystery plays
  - (C) Interest in painting and sculpture
  - (D) Development of a new type of architecture
- V Interest in science
  - (A) Beginning of true scientific thinking
    - 1 Work of Roger Bacon

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### CAPTURE OF CONSTANTINOPLE BY THE TURKS

- I Spread of Ottoman Turks into Europe
  - (A) Strength of Constantinople
  - (B) Siege and plunder by the Turks
  - (C) Mohammedan Crescent put in place of Christian Cross

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## Medieval History

### PROBLEMS FOR STUDY — Elementary Grades

- I Do you think that Charlemagne was a good ruler? If hy?
- 2 If you had lived in the Middle Ages how would your life have been different than it now is?
- 3 Make a list of all the inventions and new ideas that were added to man's learning during the Renaissance Decide which have been of the most benefit to mankind
- 4 Can you explain how the Crusades indirectly influenced the civilization that grew up in the Mediterianean countries?
- 5 If you were an artist why would you have been fortunate to have lived during the Middle Ages?
- 6 What real purpose did knighthood serve in the development of the civilization of the Middle 1ges?
- 7 Find all you can about manor life Would you have enjoyed living on a manor?

## HISTORICAL OUTLINES

## PROBLEMS FOR STUDY -- Upper Grades

- I Can you explain this statement "Christianity was a bridge between the ancient and the modern world?"
- 2 How did it happen that the Pope of Rome could call Charlemagne to Rome and crown him emperor?
- 3 Compare the Christian and Mohammedan beliefs
- 4 Compare the life of a Roman slave and that of a serf on a manor—Compare the life of a slave in the South before the Civil War with the serf of the Middle Ages?
- 5 What were the real causes of the downfall of feudalism?
- 6 What were guilds? Do we have anything similar to guilds in our present civilization?
- 7 Why do you suppose the Norseman was willing to leave his home and wander as far south as he did?
- 8 Study the location of Constantinople Trace its history Why has it always been a source of quarrels between the people of Europe and Asia? Find out something about it at the present time
- 9 Do you think we are justified in calling the time between the fall of the early Roman Empire and the Renaissance the "Dark Ages"?
- 10 Compare the results of the invention of printing and the invention of gunpowder Which has been of the most benefit to the world?
- II Why did men turn during the Renaissance to the fields of the aits and sciences?

### SUGGESTED ACTIVITIES

- On an outline map of the world show the following
   Venice, Genoa, Rome, Constantinople, Morocco
   Routes of the Hansa merchants, and important Hansa towns
   Medieval trade routes between the countries of Asia and Europe
- 2 Draw the plan of a manor
- 3 Build a castle and a moat
- 4 Make a series of cartoons showing different causes of the downfall of feudalism
- 5 Read some of the stories of King Arthur as told in Malory's "Morte d'Arthur" and then read the same stories in Tennyson's "Idylls of the King"
- 6 There is a wealth of literature and stories connected with this period in history Read some of them
- 7 Make a picture or cartoon showing the results of the Crusades
- 8 Collect materials for a book on the Renaissance for your school library
- 9 Divide your class into groups, each choose a topic to study and present in some original way to the class
- 10 As a review write and present a play on life in the Middle Ages

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# Modern European History

### **ITALY**

- I Political condition of Italy about the year 1860
- II Invasion by Napoleon
- III Work of Mazzini for unification of Italy
- IV Revolt of Prince Charles Albert against Austria
  - V Leadership of Camillo di Cavour
    - (A) Recognition of Piedmont by nations of Europe
    - (B) Plot with Napoleon to drive Austria from Italy
    - (C) War with Austria
      - I Beginning of unification of Italy
  - VI Garibaldi's work for unification of Italy
    - (A) Garıbaldı's record as a soldier
    - (B) Leadership of Sicilians
    - (C) Joining of forces with King Victor Emmanuel
    - (D) Annexation of Kingdom of Naples
      - r Proclamation of Emmanuel as King of Italy
- VII Italy under Victor Emmanuel II
  - (A) Ally of Prussia in war with Austria
  - (B) Securing control of Rome
    - 1 Pope's retirement to Vatican
  - (C) Unification of all Italy
- VIII Italy at the outbreak of the World War
  - (A) Breaking of agreement with Germany
    - I Ally of England and France
  - (B) Growth of radical ideas
  - IX Dictatorship of Benito Mussolini
    - (A) Establishment of Fascist State
    - (B) Policy of territorial expansion
    - (C) Ally of Germany in World War II

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## GERMANY AND AUSTRIA

- I Rulers of Germany from 1440 to 1713
  - (A) The Hapsburg Emperors
    - 1 Frederick III
    - 2 Maximilian and the Annexation of Hungary and Bohemia
    - 3 Thirty Years' War

- (B) The Hohenzollerns
  - I Union of Brandenburg and Prussia
    - (a) Berlin as capital
    - (b) Leadership of German states by Austria and Prussia
  - 2 Rule of Frederick William I
  - 3 Reign of Frederick the Great
    - (a) Proclamation of Marie Theresa as ruler of Austria
    - (b) Seizure of Silesia
    - (c) Seven Years' War

## II Congress of Vienna

- (A) Policies of Metternich
- (B) Representatives attending
  - r Kings of
    - (a) Prussia

(c) Wurtemberg

(b) Bayaria

- (d) Denmark
- 2 Emperors of Austria and Russia
- 3 Wellington of England
- 4 Talleyrand of France
- (C) Establishment of the Quadruple Alliance
  - 1 Members
    - (a) Prussia

(c) England

(b) Austria

(d) Russia

## III Overthrow of Metternich

- (A) Spread of revolution
- (B) Leadership of Louis Kossuth, Hungary
- (C) Students' riot in Vienna
- (D) Escape of Metternich to London

## IV Revolt of Hungary

- (A) Appointment of Kossuth as President
- (B) Help of Slavs for Austria
  - I Hungarians' defeat

## V Prussian Revolts

- (A) Constitution of 1849
- (B) William I's clash with the Chamber of Deputies
  - I Appointment of Otto von Bismarck as leader of military

## VI Bismarck's Policies

- (A) Conflict with Parliament
- (B) Attempt to control all of Germany
  - I War with Denmark
  - 2 War with Austria
- (C) Conflict with Napoleon
  - I Franco-Prussian War
    - (a) Extension of confederation to all German states
- (D) Seizure of Alsace and Lorraine
  - I Battle of Sedan

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(E) Proclamation of King William I I Appointment of Bismarck as Chancellor VII Kaiser William II and World War I (A) Retirement of Bismarck (B) Imperialistic policies of the Kaiser (C) Defeat of Germany in World War I and exile of William to Holland VIII Germany under Hitler (A) Rise to power of Nazi Party (B) Annexation of Austria and Czechoslovakia (C) World War II Page References-THE NEW WONDER WORLD I-VIII Vol VII, Pages \$8-94, 277-282 Picture References - THE NEW WONDER WORLD Volume VII Trederick the Great Prince von Metternich Kaiser William II Adolf Hitler FRANCE I Political condition in the middle of the 15th century (A) Rule of Louis XI II Invasion of Italy (A) Leadership of Charles VII, Louis XII, and Francis I (B) Valor of Chevalier Bayard III Religious Wars (A) Leadership of King Henry of Navarre I Change to Catholicism IV Reign of Marie de Medici (A) Richelieu as chief minister V Mazzini as advisor to Queen Anne (A) His death VI Rule of Louis XIV (A) Warlike policies (B) Extravagances (C) Condition of French people VII Reign of Louis XV VIII Rule of Louis XVI

(B) Storming of the Bastille

(C) The march on Versailles

(D) Execution of Louis XVI

(A) Forced meeting of Estates General

2 Forming of National Assembly

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1 Mirabeau

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- (F) Conquest of Peru by Pızarro
- (G) Control of the world by Spain and Portugal
- IV Union of Spain and Portugal
  - (A) Marriage of Queen Isabella's daughter to the king of Portugal
  - (B) Defeat of the Spanish Armada
  - (C) Winning of independence by the Netherlands
  - (D) War between Spain and Portugal
  - (E) Loss of power by both Spain and Portugal
- V War of the Spanish Succession
- VI Decline of Spanish and Portuguese power
  - (A) Ally of France in the Seven Years' War
    - I Loss of all claims in North America
  - (B) Battle of Trafalgar
    - I Defeat of Spanish
  - (C) Invasion of Napoleon
  - (D) Loss of South American colonies
    - 1 Work of Simon Bolivar
    - 2 Independence for South American colonies
  - (E) Revolution in Mexico and Spanish Central America
  - (F) Annexation of Philippines and Porto Rico by the United States
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- VII Portugal and Spain in the Twentieth Century
  - (A) Growth of Portugal as a republic
  - (B) Non-participation of Spain in World War
  - (C) Dictatorship of General Primo de Rivera in Spain
  - (D) Exile of King Alfonzo XIII
    - I Alcala Zamora as first president of the republic
  - (E) Civil War in Spain
    - 1 Manuel Azana elected president
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- 2 Abdication of Charles the V
- (C) Reign of Philip, son of Charles V

Endeavor to restore Catholicism

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- (b) Formation of the "Beggars"
- (c) Invasion of the Netherlands by the Duke of Alva
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- (e) Entrance of Spanish army into the Netherlands
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- 2 War of the Spanish Inquisition
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- 6 Acknowledgment by Spain of the independence of the Netherlands
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IV Scandinavia in European Mairs

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## IV Reign of Queen Elizabeth

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## VI Rule of Cromwell

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## VII Restoration of the Stuarts

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  - (B) Payment of \$100,000,000 to Japan
    - I Concessions to Europeans
- V Securing the "Spheres of Influence" and "Rights of Extraterritoriality" by foreigners
  - (A) The Boxer Rebellion
    - I Defeat of the Chinese
  - (B) Europeanizing of China
    - I Revolution, 1912
- VI China to-day
  - (A) Progress toward modernization
  - (B) Invasion by Japan

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#### **TAPAN**

- I Early history
- II Trade with Portugal, Spain, Holland, and England in the sixteenth century
  - (A) Coming of missionaries
  - (B) Closed-door policy
- III Opening up of trade with Japan by the United States under Commodore Perry, 1853
- IV Abolition of feudalism by Japanese
  - (A) Reign of Mutsu Hito
    - I Signing of the "Charter Oath"

#### V Chino-Japanese war

- (A) Causes
- (B) Victory for Japan
  - 1 Securing of Formosa

#### VI Russo-Japanese war

- (A) Causes
- (B) Victory for Japan
  - I Acquisition of Port Arthur and the island of Sakhalin
  - 2 Evacuation of Manchuria by Russia

#### VII Annexation of Korea, 1910

#### VIII Japanese Imperialism in the Far East

- (A) Acquisition of Kiachow
- (B) Securing of sovereignty over Shantung
- (C) Establishment of Manchukuo as a puppet state
- (D) Invasion of China
- (E) Berlin-Rome-Tokyo Axis
- (F) Domination of French Indo-China

## IX Japan in World War II

- (A) Attack on Pearl Harbor
- (B) Seizure of the Philippines
- (C) Occupation of Thailand and Burma
- (D) Seizure of Malay States and Singapore
- (E) Seizure of various islands in the East Indies
- (F) Sea and air battles

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## United States History

#### DISCOVERY AND EXPLORATION

- I Events in the Old World that led to the discovery of the New
  - (A) The Crusades
  - (B) Marco Polo's travels
  - (C) Growth in travel and trade with the East
  - (D) Changes in conceptions of the geography of the world
    - I Ancient ideas
    - 2 Change in ideas during the fifteenth and sixteenth centuries the Renaissance
    - 3 Maps and map makers
  - (E) Beginnings of the use of maritime instruments
    - 1 Compass
    - 2 Astrolabe
  - (F) Discovery of the art of "tacking"
  - (G) Search for a new route to the East
    - r Cutting off of trade routes by Turks
    - 2 Christopher Columbus' search for new route
    - 3 Interest of Prince Henry, the Navigator, in search
    - 4 Rounding of "Cape of Good Hope" by Bartholomew Diaz
    - 5 Vasco da Gama's journey to India
- II First exploration and discoveries in the New World
  - (A) Northmen's adventures on the "sea of Darkness'
    - I Leif the Lucky's wanderings
  - (B) Discovery of a new continent by Columbus
    - 1 First land claimed for Spain
  - (C) Naming of America
  - (D) Three further voyages of Columbus to the New World
- III Activities of different European nations in the New World
  - (A) Spanish
    - 1 Ponce de Leon reaches Florida
    - 2 Balboa sees the Pacific Ocean
    - 3 Cordova discovers Yucatan
    - 4 Cortes conquers Mexico
    - 5 Spain settles in the West Indies
    - 6 Magellan's fleet circumnavigates the world
    - 7 Pizarro conquers the Incas of Peru
    - 8 De Soto discovers the Mississippi River
  - (B) English
    - I The Cabots claim Newfoundland for England
    - 2 Spain and England become rivals for land in the New World
    - 3 Drake and Hawkins prey on Spanish ships
    - 4 Drake sails around the world
    - 5 English navy defeats the Spanish Armada
      - (a) England becomes "Mistress of the sea"

- (C) French
  - r Cartier and Champlain explore the St Lawrence region
- (D) Dutch
  - 1 Hudson, an Englishman, explores New York harbor
    - (a) Claims it for the Dutch East India Company

## DISCOVERY AND EXPLORATION

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The Story of Columbus	Vol IV, Pages 11-18
The Watchword of Columbus, The Dauntless	Vol IV, Page 19
Story of Leif, the Viking	Vol IV, Pages 24-26

#### SUGGESTED PROBLEMS FOR STUDY - Elementary Grades

- f I The hardships of crossing the Atlantic in the fifteenth and sixteenth centuries
- 2 Exploration of the present time

Landing of the First White Man

- 3 How Columbus received help for his voyage
- 4 Why people were afraid of the "Sea of Darkness"
- 5 How to use a compass and astrolabe
- 6 Why Columbus didn't reach the East Indies
- 7 The effect of man's curiosity in broadening knowledge
  - (a) What have you discovered through curiosity?
- 8 What do you think would have happened if explorers hadn't reached this continent in the fifteenth century?
- 9 How each explorer helped his country gain a foothold in America
- 10 What contributions to man's learning were made during this period?

## PROBLEMS FOR STUDY - Upper Grades

- I How did the period known in history as the "Renaissance" pave the way for the discovery of America?
- 2 Why was Asiatic trade so important to Europeans?

- 3 Explain the importance of each of the following in furthering exploration
  - (a) Use of compass and astrolabe
  - (b) Making of maps and globes
  - (c) Tacking
- 4 Why were Portugal and Spain the leaders in early exploration, rather than England and France?
- 5 Why did Italy and Germany take no part in exploration at this time?
- 6 Explain the importance in this period of each of the following
  - (a) Marco Polo

(d) Amerigo I espucci

(b) Prince Henry

- (e) Sir Francis Drake
- (c) Queen Elizabeth
- (f) Jacques Cartier
- 7 Why was the defeat of the Spanish Armada one of the "Great Moments" in history?
- 8 How did the geography of the New World make it especially desirable to be the home of a great nation?
- 9 Can you justify each of the following
  - (a) Naming of America
  - (b) Cortes' conquest of Mexico
  - (c) Pizarro's treatment of the Incas
  - (d) Sir Fiancis Drake's war on Spanish ships
- 10 Upon what did each of the following countries base their claims in the New World?
  - (a) England

(d) Holland

(b) France

(e) Portugal

(c) Spain

#### SUGGESTED ACTIVITIES FOR CHILDREN

- I On an outline map, or on one that you make, print in and color the following
  - I Early trade routes to the East
  - 2 The Red, Black, and Mediterranean Seas
  - 3 China, Japan, and India
  - 4 Spain, England, France, Portugal, and Holland
  - 5 Route of the first voyage of Columbus
    - (a) San Salvador
  - 6 Routes of Magellan and Sır Francıs Drake
  - 7 Region conquered by Pizarro
- II On an outline map of North America print in and color the following
  - I Discoveries of the Cabots
  - 2 Cartier's explorations
  - 3 Florida
  - 4 Henry Hudson's explorations
  - 5 The Mississippi, Wisconsin, Illinois, Ohio, and St. Lawrence Rivers
  - 6 Region of Coronado's "Seven Cities"
  - 7 Mexico
- III Make an attractive map of the world as people thought of or knew it before Columbus' time
- IV In order to get a feeling for time, start a time record. There are many interesting vays to do this, such as the use of a clock, ladder, circle, etc. It can be class or individual vork. Pictures, preferably those drawn by vourself, add to its attractiveness. Try to make yours as original as possible. Here is a suggestion

Draw a horizontal line and mark off in periods of fifty years, beginning at 1000 AD, which is about the time that Leif the Lucky discovered "Vineland the Good" It will be easier if you call one inch twenty-five years. Your class might decide what the important events are for this period. Save your time line to use as you study the growth of the United States through its history

## V One of the following

- I An imaginary account of Marco Polos travels
- 2 An imaginary discussion between two merchants when the Red and Black Seas were closed by the Turks
- 3 The log that might have been kept by the "Santa Maria'
- 4 An imaginary letter by Ponce de Leon to a relative in Spain
- 5 A Spanish sailor's account of the defeat of the Spanish Armada (Be sure to stay close to true historical detail and style in the above writing)

## VI Prepare one of the following

- 1 A map in clay or flour and salt of the physical features of North America
  - (a) Show important explorations
- 2 A collection of pictures of the period, mounted and labeled for a scrapbook on the history of the United States
- 3 A series of pictures or cartoons showing the important events in the story of exploration and discovery
- 4 A special report for your class on one of the following
  - (a) Prince Henry, the Navigator
  - (b) Elizabethan Sea Dogs
  - (c) How the Winds Helped Columbus
  - (d) Story of the Incas
  - (e) How the Indians Got Their Name
  - 5 A dramatization covering any part or event in this period, such as Columbus at the Court of Spain, The Crusades, and Hudson's arrival in New York harbor
    - (a) This could be done by dividing into groups and each group making one scene or one play It could also be a whole class or individual project
  - 6 A story of exploration that you have read This need not be of this period and should preferably be one with which your class is not familiar
    - (a) You could have a story hour for sharing these stories

## Suggestions for Teachers

- I A worthwhile approach to this unit is through an interest in the present-day exploration. This can be introduced through informal conversation, reading of magazine articles, newspaper clippings, books and stories, or the telling of stories.
- 2 Tell or read stories and poems about exploration A list of such stories from The New Wonder World can be found at the end of the subject matter outline of this unit You might also use selections from such books as "Great Moments in Exploration," "Boys' Book of Exploration," "Westward Ho," and "Story of Columbus" Encourage your children to read as widely as possible in this field
- 3 Be sure to work with your class to determine minimum essentials dates, place names, names of persons, and historical terms and events
- 4 Be sure to make use of the pictures from The New Wonder World covering this unit listed at the end of subject matter unit Discuss with children

- 5 Your backward survey might be a socialized recitation (review) based on the suggested problems at the end of the unit, or a dramatization or moving picture showing the story of the period
- 6 Test, preferably at the beginning of the unit, as well as at the end, to determine growth
- 7 The material in this unit can be used by classes studying European background as well is those interested in United States History

#### LIFE IN COLONIAL AMERICA

- I Dangers from the Indians
- II Homes of the colonists
  - (A) Types of homes built
  - (B) Furniture and utensils used
  - (C) Clothing of the family
- III Occupations of the colonists
  - (A) Differences in New England, middle colonies, and the South
- IV Religion and education
  - (A) Kinds of churches built
  - (B) Observance of the Sabbath
  - (C) Persecution and intolerance of certain religious sects
  - (D) Early schools
    - 1 Free schools of 1647
      - (a) Buildings used
      - (b) Teachers
      - (c) Books and curriculum
      - (d) Social uses of schools
  - V Social life of the people
    - (A) Cooperative gatherings
      - I Husking bees
      - 2 Spelling matches
      - 3 Haying day
      - 4 Barn raisings
      - 5 Wolf drives
    - (B) Regulation of conduct
      - I Laws controlling pastimes and amusements
      - 2 Punishment of oftences
      - 3 Witchcraft in New England

#### LIFE IN COLONIAL AMERICA

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Picture References - THE NEW WONDER WORLD

## SUGGESTED PROBLEMS — Elementary Grades

- I If you had been a child in colonial days what things in colonial life would you have enjoyed? What things would you have found difficult?
- 2 If you had had your choice of living in one of the colonies which would you have chosen? Why?
- 3 How did the colonies defend themselves from the Indians?
- 4 Why were most social activities carried on in a group?
- 5 Where did most of the towns group up in the early colonies? Can you give reasons why?

#### SUGGESTED PROBLEMS - Upper Grades

- I How did life in the northern, middle, and southern colonies differ? How was it alike?
- 2 Can you justify the strict regulation of conduct practiced by the Puritans?
- 3 What is meant by "free schools" in the United States?
- 4 What arguments could a man living in the southern colonies have advanced to influence a man in the New England colonies to settle in the South?
- 5 Do you think the colonists' life in America was happier than that in Europe? Why?
- 6 Do you find in life in colonial America the religious toleration that the colonists sought?
- 7 Why did all the colonies encourage slavery?
- 8 Can you give arguments to prove that colonial life was more conducive to a feeling of community spirit and patriotism than the life of to-day?
- 9 What were the contributions of the colonial period to our civilization?
- 10 How does a school such as you attend compare with schools in the colonies?

## SUGGESTED ACTIVITIES

- r Build a model of one of the following
  - (a) One of the colonial settlements
  - (b) A patroon estate
  - (c) A Southern plantation

- (d) A typical New England town
- (e) A colonial kitchen, bedroom, or parlor
- (f) A colonial church, or school house

or

2 Draw and paint one of the above

(Be sure to examine pictures and read references to get the right idea, and draw or construct to a scale)

- 3 Collect all the colonial articles you can find in your home and neighborhood for a colonial exhibit
- 4 Make something typically colonial such as a Horn book, a sampler, a colonial tool, a doll in Quaker or Puritan costume, etc
- 5 Dramatize scenes from colonial life

## Suggestions to Teachers

- An approach to this unit could be made through the discussion of a colonial article such as a Horn book—such questions as "What use was made of the Horn book?", "What reading was in it", etc, can be discussed However, this unit should lead naturally from the previous one and children will by this time probably set their own problems
- 2 As many stories of colonial life as possible should be read or told to the children and read by them
- 3 If it is possible, a trip should be made to a museum to see colonial articles The American Wing at the Metropolitan Museum in New York has material on colonial life
- 4 It seems unnecessary to test for this unit as the review survey at the end of the next unit will take care of this one

#### COLONIZATION AND SETTLEMENT OF THE NEW WORLD

- I Peoples living on the continent before the white man came
  - (A) Origin of the American Indian
  - (B) Names given to different tribes
    - The Six Nations or Iroquois
      - (a) Senecas
      - (b) Mohawks
      - (c) Onondaguas
    - 2 The Algonquins
    - 3 The Sloux or Dakota Indians
      - (a) Winnebagos
      - (b) Poncas
    - 4 Chinook or Canoe Indians
    - 5 Pueblo Indians
    - 6 Eskimos
    - 7 The Mayas of Central America
    - 8 The Aztecs of Mexico
    - o The Incas of Peru
  - (C) Differences among tribes
    - r Language spoken
    - 2 Activities
      - (a) Plains Indians
      - (b) Woods Indians
      - (c) Nomads
      - (d) Canoe Indians
    - 3 Clothing worn
    - 4 Types of shelter
    - 5 Customs and tribal life
  - (D) General habits and customs of Indians
    - 1 Keeping records
    - 2 Telling time
    - 3 Use of wampum
    - 4 Use of ornaments
    - 5 Wearing of moccasins
    - 6 Use of baby boards
    - 7 Use of canoes

    - 8 Keeping a campfire burning
    - o Life in an Indian home
  - (E) Importance of prayer in the life of an Indian
  - (F) Indian folklore
  - (G) The Mayas of Central America
    - I Origin of the Mayan culture
    - 2 Calendar of the Mayas
    - 3 Mayan writings
    - 4 Mayans of to-day
  - (H) The white man's relations with the Indian
    - In colonial times
    - 2 To-day

- (d) Oneidas
- (e) Cavugas
- (f) Tuscaroras
- (c) Omahas
- (d) Osages

- (e) Village or Pueblo Indians
- (f) Fishing Indians
- (g) Agricultural Indians

- II Rivalry of England, France, and Spain for land in the New World
  - (A) Samuel de Champlain, a Frenchman, explores regions of the St Lawrence, Penobscot, and Kennebec rivers
    - 1 Discovers Acadia
    - 2 Establishes Mont Royal, now Montreal
    - 3 Founds Quebec
  - (B) Fur trading posts are established at Mont Royal
  - (C) Marquette and Joliet search for a "great river"
    - I Explore the Wisconsin and Mississippi
      - (a) Land along river valleys is claimed for the French
  - (D) La Salle explores the Mississippi Valley from the Illinois River to the Gulf of Mexico
    - I Claims all land drained by Mississippi and its tributaries for France
    - 2 Establishes missions along the Great Lakes
  - (E) Spain establishes colonies in Yucatan, Mexico, and South America
    - 1 Work of Don Pedro and Simon Bolivar
  - (F) Settlements are made by the Spanish in California
  - (G) England establishes colonies along the eastern coast

## III English colonies in the New World

- (A) Virginia
  - I First attempts at settlement
    - (a) Sir Richard Grenville's expedition in 1585
    - (b) Sir Walter Raleigh's second expedition
      - 1 Birth of Virginia Dare 11 Disappearance of the "Lost Colony"
  - 2 The London Company's settlement at Jamestown
    - (a) Hardships of first year
    - (b) Captain John Smith's arrival
    - (c) Government under Captain Smith
    - (d) Exploration and naming of "New England" by Smith
    - (e) Captain Smith's return to England
      - 1 "Starving time" in the colony
    - (f) Arrival of Lord Delaware
    - (g) Important events of the year 1619
      - 1 Arrival of women in the colony
      - 11 Beginning of slave trade
      - m Establishment of House of Burgesses
    - (h) Change to a Royal Colony
- (B) New York
  - I Establishment of fur-trading posts on the Hudson
  - 2 Settlement of Albany
  - 3 Naming of New Amsterdam
  - 4 Purchase of Manhattan by Peter Minuit
  - 5 Government of colony by Peter Stuyvesant
  - 6 England's claims to land
    - (a) Surrender of Dutch to England 1664
  - 7 Spread of Dutch colonists along the Hudson and Mohawk River valleys
- (C) Plymouth
  - 1 Arrival of Mayflower at Provincetown
    - (a) Exploration of surrounding region
- (b) Encounters with the Indians

- 2 Settlement at Plymouth
  - (a) Building of the colony
  - (b) Life during first winter
    - 1 Hardships
    - 11 Dangers from the Indians
    - m Work of Myles Standish
  - (c) The first Thanksgiving Day
  - (d) Government of colony
    - 1 Signing of Mayflower Compact
    - 11 Appointment of John Carver as governor
    - 111 Work of William Bradford
    - iv Beginnings of Town Meeting
- (D) Massachusetts Bay Colony
  - I Dissatisfaction of Puritans in England
  - 2 Arrival of bands of Puritans in the New World
  - 3 Settlement of Puritans on Charles River
    - (a) Appointment of John Winthrop as governor
  - 4 Removal from Charles River to Beacon Hill
    - (a) Naming of colony
    - (b) Building of houses and churches
    - (c) Growth of Boston



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#### (E) Pennsylvania

- 1 Persecution of Quakers in both the Old and New Worlds
- 2 Leadership of William Penn
- 3 Arrival of Penn in the New World
  - (a) Building of the "City of Brotherly Love"
  - (b) Relations of Penn with the Indians
- 4 Coming of Germans and Scotch-Irish
- 5 Grant of "Charter of Privileges" to colonists by Penn
- 6 Work of Benjamin Franklin in the colony

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#### SUGGESTED PROBLEMS - Elementary Grades

- 1 Make a list of reasons why settlers from Europe came to America in the 17th century? Why do people come to America to-day?
- 2 Why is 1619 an important date in the history of Virginia?
- 3 Can you give reasons why the New England colonies met with more hardships than Penn's coloni?
- 4 If you had been leader of a group of settlers in the 17th century where would you have located? Why?
- 5 Do you believe this statement is true The Indians have been treated fairly by the white man? Explain
- 6 If you had been hoing in New Amsterdam under Peter Stuyiesant would you have been willing to surrender to the English?
- 7 What do we mean when we say that North America faces Europe?

#### SUGGESTED PROBLEMS - Upper Grades

- I How did the civilization of the Indians differ from that of the white mail? How did that of the northern and southern Indians differ?
- 2 What has been the story of the white man's relations with the Indian since the 16th century? Why were the Indians more friendly toward the French than the English?
- 3 How did the geography of the New World influence the settlers and settlements?
- 4 What conditions in the Old World were responsible for the migration to 1 merica?
- 5 Explain the importance of the French foothold in America
- 6 Why do we speak of the "triangular" trade of New England?
- 7 Show how the "Spirit of Democracy" was at work in the colonies from the earliest beginnings of settlement

#### SUGGESTED ACTIVITIES

I Read one or more of the following

Chief Standing Bear — "My People, the Sioux"

Fairlie - "Stories of the Seminoles"

Guerber — "The Story of the Thirteen Colomes"

Hawthorne — "Grandfather's Chair"

Longfellow — "The Courtship of Miles Standish'

Meigs — "Master Simon's Garden'

Perkins — "The Colonial Twins of Virginia"

Prescott -- "A Day in a Colonial Home '

Seymour — "Indians To-day"

Singmaster — "Book of the Colonies"

- 2 Make a pictorial map showing where different tribes of Indians were centered in North and South America
- 3 Make a study of Indian names, legends, and remains in your neighborhood
- 4 Try to find out where Indians lived near your neighborhood If you live near an Indian reservation, visit it
- 5 Try making names for your classmates like the names the Indians had
- 6 Make a series of pictures showing types of shelter used by different Indian tribes
- 7 Read some Indian folklore and stories and listen to some Indian music, if possible
- 8 Make something typically Indian such as a pottery bowl, a woven blanket an arrowhead, a tepee, a totem pole, an Indian camp or village
  - (a) This would make an excellent class project
- 9 On an outline map or one of your own making, print and color in the following
  - (a) Centers of Mayan, Aztec, and Inca civilizations
  - (b) Region explored by Champlain
  - (c) Jamestown
  - (d) Fort Orange (Albany), Manhattan, and the Hudson River
  - (e) Plymouth, Charles River, and Boston
  - (f) "City of Brotherly Love"
  - (g) Providence, Baltimore, Charleston, and Savannah
  - (h) St Augustine, Florida
- 10 Prepare one of the following
  - (a) A talk on what the U S government is doing for the Indian to-day
  - (b) An account of Colonel Lindbergh's interest in American Indian civilization
  - (c) An advertisement such as William Penn might have used to further immigration from Germany, Ireland, and Scotland to America
  - (d) A picture or drawing of Philadelphia as conceived by William Penn
  - (e) A letter written by a Plymouth colonist telling his family in Scrooby, England, the story of the colony's first winter
  - (f) A list of French, English, Spanish, Dutch, and Indian place names in the United States
  - (g) A dramatization or play of this period
    - Suggestions William Penn's treaty with the Indians, Landing of the Pilgrims, A New England Town Meeting
  - (h) A series of cartoons or pictures showing that many nationalities went into the making of America and that various motives influenced the settlers
- Divide your class into two groups and prepare arguments for a discussion on the following topics
  - (a) Religious freedom was the chief goal of the Colonists
  - (b) "America proved to be a boarding house" for the overflow population of Europe Van Loon
  - (c) "Colonizers had everything to gain and nothing to lose" Van Loon
  - (d) To be a proprietor of a colony was a distinct advantage
  - (e) The United States is justified in her treatment of the Indian

## Suggestions to Teachers

- An excellent approach to this unit is a discussion of present-day immigration to the United States, "Why do people leave their country?" Do you know people who have come from another country, or how many of you have come from another country to America? This can be introduced by a newspaper clipping or story
- 2 In the upper grades a discussion of the problem "How important to the growth of civilization is immigration," would make a very good approach

- 3 Encourage wide reading in this field
- 4 If possible take your class to a museum where they can see an Indian exhibit
- 5 Familiarize your class with Indian music, dances, art, and folklore
- 6 Work out minimum essentials with the group
- 7 For a review survey, a series of stories told by different children representing the Indians the French, and different colonies would be interesting. Give an interesting drill on place names, historic terms, persons, and events. Include those from the first unit. Children should be encouraged to help in making and giving the drill.

#### STRUGGLE OF THE FRENCH AND ENGLISH FOR CONTROL OF THE CONTINENT

- I Causes of conflict
  - (A) English claims
  - (B) French claims
- II Indians' part in conflict
- III The actual war
  - (A) George Washington's leadership
  - (B) Wolfe and Montcalm at Quebec
  - (C) Capture of Montreal by English
  - (D) Treaty of Paris
    - I English supremacy in territory east of the Mississippi and north of the Great Lakes

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#### SUGGESTED PROBLEMS — Elementary Grades

- I Can you think of reasons why the English defeated the French in the struggle for the continent?
- 2 What part did George Washington play in the struggle?
- 3 Why do you think Braddock acted as he did?
- 4 Do you think this was an important exent in our history?
- 5 What part did the colonists take in the war? What part did the Indians take?

#### SUGGESTED PROBLEMS - Upper Grades

- I Why was the junction of the Ohio and Monongahela Ricers a strategic point?
- 2 Do you think it was important that the English rather than the French won it e struggle for control of the North American continent?
- 3 Compare English and Trench colonization in the United States
- 4 Do you think the French or English were more justified in claiming the land in the Oh of alle ? Whi?
- 5 If hat important outcomes other than the direct terms of the Treats of Paris can so i suggest?

#### SUGGESTED ACTIVITIES

- I On your map of North America, print and color in the following
  - (a) The Ohio, Monongahela, and Allegheny Rivers
  - (b) Land claimed by the British
  - (c) Land claimed by the French
  - (d) Canada, Montreal, and Quebec
  - (e) Fort Le Boeuf
- 2 Continue your collections of pictures, and place events on time line
- Write the note that George Washington might have carried to the French commander at Fort Le Boeuf, and his reply to Governor Dinwiddie
- 4 Write an account of the English activities in the Ohio Valley from the viewpoint of a French fur trader
- 5 Write an account of the deaths of Wolfe and of Montcalm by both an English and a French soldier
- 6 Make a map showing North America after the French and Indian War

## Suggestions to Teachers

- r One approach to this unit would be an informal discussion of such a problem as, "Why does England control Canada?", or, "How many have visited the French town of Quebec in Canada?"
- 2 Work out minimum essentials with class
- 3 Test for growth
- 4 For review, your class might make a cartoon or a series of cartoons showing the struggle of the French and English in America

## A Review Survey of the Whole Unit

Since this concludes an important period in our history it might be well to make a review summary. The members of the class should be encouraged to carry out this project themselves. It might be a class or group or individual project. Some suggestions follow

- Beginning a History of the United States, this to contain letters, diaries, stories, information, pictures, cartoons, etc
- 2 A socialized review using the time line
- 3 Several games reviewing important places, persons, events, etc
- 4 An exhibit of all work done and materials collected during the study
- 5 A series of pictures or cartoons showing important events of the period
- 6 A pageant or play of the period Different groups could work up different scenes such as "Columbus Discovering America," "First Meeting with the Indians," "William Penn Smoking the Peace Pipe with the Indians," "Washington at Fort Le Boeuf," etc This is probably the best summary as it gives the child a chance to use his information

#### STRUGGLE OF THE COLONIES FOR INDEPENDENCE

- I Reasons for disagreement of colonists and English
- II Events leading to actual rebellion
  - (A) Passing of the Stamp Act
  - (B) Issuance of "Writs of Assistance"
  - (C) Speeches of Patrick Henry and James Otis
  - (D) Massacre at Boston
  - (E) Dumping of tea into harbor by colonists
    - I Closing of Boston port by King George
  - (F) Convening of the "First Continental Congress"
  - (G) Organization of the "Minute Men"
  - (H) Skirmishes at Lexington, Concord, and Bunker Hill
  - (I) Attitude of William Pitt and Edmund Burke

#### III The revolt of the colonies

- (A) Work of the Second Continental Congress
  - I Adoption of the Declaration of Independence
  - 2 Appointment of George Washington as Commander-in-Chief of the Continental army
- (B) Capture of Fort Ticonderoga by Ethan Allen and Benedict Arnold
- (C) Siege of Boston by Americans
  - I Evacuation by British
- (D) Attack on New York by the British
  - I Execution of Nathan Hale as a spy
  - 2 Washington's retreat to New Jersey
  - 3 Abandonment of Philadelphia by Congress
  - 4 Washington's surprise attack at Trenton
- (E) Campaigns of Burgovne and Howe
  - 1 Plans for campaign
  - 2 General Howe's attack on Philadelphia
  - 3 Burgovne's recapture of Fort Ticonderoga
  - 4 Stark's stand at Bennington
  - 5 Battles of Saratoga
  - 6 Burgoyne's surrender
- (Γ) Winter headquarters of armies
  - 1 Washington at Valley Forge
  - 2 British in Philadelphia
  - 3 Help of Robert Morris
- (G) Beginnings of the navy
  - I Work of the "privateers'
    - (a) Fame of John Paul Jones
  - 2 Battle of the Scrapis and Bonhomme Richard
- (H) War in the South
  - 1 English capture of Savannah
  - 2 General Cornwallis' advance into North Carolina
  - 3 Maneuvers of Greene and Daniel Morgan
  - 4 Help from Lafavette, a Frenchman
  - 5 Surrender of Cornwallis at Yorktown

- (I) Treaty of Peace
  - 1 Activities of Jay and Franklin
  - 2 Terms of peace

#### STRUGGLE OF THE COLONIES FOR INDEPENDENCE

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## PROBLEMS FOR STUDY — Elementary Grades

- I Why was George Washington a good person to choose as leader of the colonial army?
- 2 What did the colonists mean when they said, "No taxation without representation"?
- 3 Who were the Torres and what part did they play in the Revolution?
- 4 What were Benjamin Franklin's and Samuel Adams' services to their country?
- 5 If you had been living on a plantation in Virginia when the Revolution broke out, would you have been a Rebel or a Tory? Why?
- 6 What part did each of the following play in the struggle for independence?
  - (a) Patrick Henry
  - (b) Richard Henry Lee
  - (c) Thomas Jefferson
  - (d) John Adams
  - (e) Bonhomme Richard

- (f) Robert Morris
- (g) George Rogers Clark
- (h) John Paul Jones
- (1) Lafayette
- (1) Minute Men

#### PROBLEMS FOR STUDY — Upper Grades

- I Show that during the early years of the struggle the colonists were interested in securing their "rights as Englishmen," rather than independence
- 2 Why was the Stamp Act considered to be unjust? The government of the United States now uses such stamps on certain articles
- 3 Prove that this statement is not true "All the colonists were eager for independence"
- 4 Why do we consider the First and Second Continental Congresses epoch-making events?
- 5 What effect do you suppose the execution of Nathan Hale had upon the Colonial army?
- 6 Of what importance was each of the following during the struggle of the colonies for independence?
  - (a) Committees of Correspondence
  - (b) Navigation Laws
  - (c) Levington and Concord
  - (d) Declaration of Independence
  - (e) The Ohio Valley

#### SUGGESTED ACTIVITIES

- I On an outline map, or one you make, show the following
  - (a) Boston

- (f) Valley Forge
- (b) Lexington and Concord
- (g) Yorktown
- (c) Bunker Hill
- (h) Burgoyne's line of campaign
- (d) Fort Ticonderoga
- (1) Boundaries of the colonies at the beginning of the war

(e) Trenton

- (1) Boundaries of the United States in 1783
- 2 Write one of the following
  - (a) The speech that James Otis might have made condemning the Stamp Act
  - (b) A letter from a "Committee of Correspondence" to the Second Continental Congression
  - (c) A newspaper account of the framing and adoption of the Declaration of Independence
  - (d) An account of the Boston Tea Party by an eyewitness
  - (e) An account of Cornwallis' surrender at Yorktown by a British soldier
- 3 Do one of the following
  - (a) Dramatize any part of the struggle, such as the Second Continental Congress or the Boston Tea Party
  - (b) Make a series of cartoons showing the events that led to actual revolution
  - (c) Make a cartoon showing that the colonists tried to secure reform before demanding independence
  - (d) Write the letter that Benjamin Franklin might have written to Lafavette thanking him for his services to America, or the letter George Washington might have written to Robert Morris for the same purpose
  - (e) Make a picture or cartoon showing the results of the struggle
- 4 Read
  - (a) "At Concord Bridge," Ralph Waldo Emerson
  - (b) "Paul Revere's Ride," Henry Wadsworth Longfellow
  - (c) "A Boy of '76," Coffin
  - (d) "A Girl of '76," Knipe
  - (e) "The Story of George Washington," Lucy Foster Madison
- 5 For a backward survey you might
  - (a) Dramatize the story of the struggle
  - (b) Write the story to be added to your book History of the United States
- 6 Be sure to keep your time line up-to-date

## ORGANIZATION OF A NEW GOVERNMENT FOR THE UNITED STATES OF AMERICA

- I Origin of the Constitution
- II Earlier steps toward representative government
  - (A) House of Burgesses in Virginia
  - (B) Mayflower Compact
  - (C) New England Confederation
  - (D) Albany Plan of Union
  - (E) Stamp Act Congress
  - (F) First and Second Continental Congresses
  - (G) Articles of Confederation
- III Making of the Constitution
  - (1) Purpose of convention

- (B) Famous delegates
- (C) Work of the convention
  - I Questions to be decided
    - (a) Representation
    - (b) Taxation
    - (c) Slavery
  - 2 Compromises made
- IV Presentation of new Constitution to the people
  - (A) Opposition of Patrick Henry and Samuel Adams
  - (B) Opposition in Massachusetts, Virginia, and New York
    - 1 Work of Madison, Washington, Alexander Hamilton, and Patrick Henry
  - (C) Addition of "Bill of Rights" as first ten amendments
- V Adoption of the Constitution
- VI Election of George Washington as first President of the United States
  - (A) Selection of Jefferson and Hamilton as cabinet members
  - (B) Work of Alexander Hamilton
    - r Restoration of credit in the United States
    - 2 Institution of "indirect taxes" through tariff
    - 3 Issuance of United States bonds
      - (a) Payment of foreign and domestic debts

## VII Rise of political parties

- (A) Causes of rise
- (B) Early parties
  - 1 Leaders
  - 2 Differences
- (C) Later and present political parties

#### ORGANIZATION OF A NEW GOVERNMENT FOR THE UNITED STATES

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#### PROBLEMS FOR STUDY - Elementary Grades

- 1 What were the Articles of Confederation?
- 2 How does the Constitution of the United States provide for the making of laws and the interpreting and enforcing of them?
- 3 What cities in the United States have been the capital of the nation?
- 4 Why is it a good thing for the President to have a Cabinet?
- 5 Explain that is meant by "tariff" Can you show how it works to-day?

#### PROBLEMS FOR STUDY - Upper Grades

- I Why was it necessary to adopt the Articles of Confederation?
- 2 Why did these Articles prove inadequate for governing the colonics?
- 3 Compare the Articles of Confederation and the Constitution as caopted in 1788 as to methods of taxetion, representation, making laws, etc
- 4 Why was the question of representation a critical one?
- 5 How did the question of slavery affect the adoption of the Constitution?

#### SUGGESTFD ACTIVITIES

- 1 By means of a chart, graph, cartoon, or a series of pictures show the steps that led to actual union of the colonists from the New England Confederation to the adoption of the Constitution
- 2 By means of a chart show the story of the administration of the first President of the United States
  - (a) Use for a special report on "Washington as President'
  - (b) Bring out the services rendered to the country by Alexander Hamilton
- 3 Have a Constitutional Convention Carry on the regular business of the convention as it was carried on in 1787

### THE GROWTH OF THE WEST AND THE EXPANSION OF THE UNITED STATES

- I First great strides across the Appalachian Mountains
  - (A) Adventures of Daniel Boone
    - I Journey through the Cumberland Gap
    - 2 Early interest in the Indian hunting ground, ' Kentucky
    - 3 Exploration of the wilderness
    - 4 Building and settling of Boonesborough
      - (a) Danger from Indians under Chief Logan
    - 5 Spread of settlers into Kentucky
  - (B) Followers of Daniel Boone
    - I Exploration of Tennessee by James Robertson and John Sevier
    - 2 Adventures of Simon Kenton
- II George Rogers Clark's conquest of the Northwest Territory
  - (A) Journey down the Monongahela and Ohio Rivers
    - I Capture of the French town Kaskaskia
    - 2 Capture of the English fort Vincennes
  - (B) Formation of Ohio Indiana Illinois Michigan, and Wisconsin
    - I Settlement of Ohio 1788
      - (a) Lite in the settlement

- (b) Dangers from Indians
  - 1 Work of Mad Anthony Wayne
- (c) Growth of the settlement
- (C) Tecumseh's attempt to hold back the pioneers
- (D) Passing of the "Northwest Ordinance"
- III Purchase of Louisiana by Thomas Jefferson
  - (A) Opposition to purchase
  - (B) Effect on expansion of the United States
- IV Invention of the steamboat
  - (A) Story of
  - (B) Effect on migration to the West
- V Evodus of settlers into the valleys of the Mississippi, Ohio and Alabama Rivers
  - (A) Spread of slavery in these regions
  - (B) Admission to statebood of Louisiana, Ohio, Alabama, and Mississippi
  - (C) Missouri Compromise
    - 1 Maine a free state
    - 2 Missouri a slave state
- VI Dispute with England over the control of American commerce
  - (A) Passage of the "Embargo Act"
  - (B) Impressment of American sailors
  - (C) Clay and his "War Hawks"
  - (D) War of 1812
    - I Failure of Americans on land
    - 2 Engagement of the Constitution and the Guerriere
    - 3 Capture of the Chesapeake by the Shannon
      - (a) Death of Captain Lawrence
    - 4 Hartford Convention
    - 5 Peace of Ghent
    - 6 Results of the war
    - 7 Purchase of Florida by the United States
- VII Lewis and Clark's expedition to the Pacific Northwest
  - (A) Journey up the Missouri from St Louis
  - (B) Journey from St Louis to the Pacific
  - (C) Heroism of an Indian woman Sacagawea
  - (D) Exploration of surrounding regions
  - (E) The journey homeward
  - (F) Importance of the expedition
- VIII Completion of the Erie Canal
  - (A) Effect on expansion of the United States
  - (B) Effect on trade between East and West
  - IX Growth of railroads in the Umted States
    - (A) Story of
    - (B) Advantages over canals and steamboats
    - (C) Opening up of the West

#### X Further pioneering in the West

- (A) Zebulon Pike's exploration of Colorado
  - I Discovery of Pike's Peak
- (B) "On to Oregon" migration
  - 1 Covered wagon travel
  - 2 Dr Marcus Whitman's leadership
- (C) Mormon settlement at Salt Lake City
- (D) John C Fremont's exploration of the valley of California
  I Scouting of Kit Carson

## XI Dispute between United States and Mexico over Texas

- (A) Advance of early settlers into disputed Mexican territory
- (B) Death of David Crockett at the Alamo
- (C) Sam Houston's victory at San Jacinto
- (D) Setting up of Texas as an independent state

#### XII Annexation of Texas

- (A) Questions involved
  - 1 War with Mexico
  - 2 More slave-holding states
- (B) Annexation, 1845
- (C) Admission of Florida as a state

#### XIII English-American dispute over the Oregon territory

- (A) English claims
- (B) United States' claims
- (C) Compromises
- (D) Making of Oregon, Washington, and Idaho

#### XIV War with Mexico

- (A) Mexican claims
- (B) Claims of the United States
- (C) First bloodshed
  - I Indignation of President Polk
  - 2 Lincoln's "Spot Resolutions"
- (D) Declaration of War
  - I Invasions of Zachary Taylor and Winfield Scott
  - 2 Capture of Mexico City by Americans
- (E) Treaty of peace
- (Γ) Making of California, Nevada, Utah, New Mexico, and Arizona

#### XV The last advance

- (A) Opening up of California
  - 1 Discovery of gold
  - 2 First news of the discovery
  - 3 Rush of the "forty-niners"
  - 4 Life in mining camps
  - 5 Admittance to statehood 1850
    - (a) Compromise of 1850

## XVI Settlement of states of the Northwest Territory

- (A) Minnesota and Kansas
  - I Migration of German element
- (B) Dakotas and Oregon
  - Migration of Norwegians and Swedes
- (C) Nevada, Arizona, Colorado, and Montana
  - 1 Migration of miners

#### THE GROWTH OF THE WEST AND THE EXPANSION OF THE UNITED STATES

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#### Story References - THE NEW WONDER WORLD

Thomas Jefferson's Life, Vol VII, Pages 220-221 Sacagawea, Heroine of the Lewis and Clark Expedition, Vol VII, Pages 222-224 Custer's Quarrel With Rain-in-the-Face, Vol IV, Pages 123-125 Crossing the Colorado Desert, Vol IV, Pages 116-122 The Pioneer (Poem), Vol V, Page 157

## PROBLEMS FOR STUDY - Elementary Grades

I What was the real service of Daniel Boone to his country?

A Pioneer Group of the Period of "Westward March"

The Story of Means of Travel The "Forty-Niner"

- What States later grew out of the country where Boone settled and lived?
- How did the exploration of George Rogers Clark add to the "Westward Movement"?
- If you had been a proneer child, would you rather have accompanied Clark on his trip through the Northwest Territory, or helped Daniel Boone blaze the "Wilderness Road"?
- How did the United States happen to buy Louisiana from the French?

- 6 How did the use of steamboats, canals, and railroads help in the "Westward Mosen ent?
- 7 What connection does each of the following have with the "Westward Movement" in the United States?
  - (a) Capture of Vincennes
  - (b) Purchase of Louisiana
  - (c) Zebulon Pike
  - (d) Lone Star Republic
  - (e) Davy Crockett

- (f) Kit Carson
- (g) The Forty-Niners
- (h) Ponv Express
- (1) General Custer
- (1) Union Pacific Railroad
- 8 What kind of life developed in these western settlements?

#### PROBLEMS FOR STUDY — Upper Grades

- I Why were people willing to more from the eastern coastal plains to the western wilderness?
- 2 How did the geographical conditions influence the location of settlements in the Wist?
- 3 How did the United States Government encourage the Westward Movement?
- 4 What happened to the Indian during this period of westward expansion?

#### SUGGESTED ACTIVITIES

- I On a map place the following
  - (a) Appalachian Mountains
  - (b) Boonesboro
  - (c) Fort Vincennes
  - (d) Route taken by Lewis and Clark
  - (e) Route of the Erie Canal
  - (f) Union Pacific and Northern Pacific Railroads
  - (g) Alamo and San Jacinto
  - (h) The Oregon Trail
  - (1) The Ohio, Kentucky, Tennessee, Rio Grande, Missouri Mississippi, and Colorado Rivers
  - (1) Wilderness Road
  - (k) Kaskaskia
- 2 Read widely stories and poems about this period in our history
- 3 Write
  - (a) An original story of covered wagon days or of the "Pony Express"
  - (b) A newspaper article telling about the completion of the Union Pacific Railroad
  - (c) An original poem about the pioneers
- 4 Make a map or series of maps showing the gradual expansion of the United States A pictorial one would be attractive
- 5 Build a pioneer settlement or a covered wagon trail
- 6 As a backward survey you might
  - (a) Make a moving picture or plan a play or pageant showing "The Westward Movement in America "
  - (b) Do the same for "Life During the Westward Movement"

#### BOOKS FOR YOU TO READ

- Alice of Old Vincennes" Thompson
  "Daniel Boone and the Wilderness Road Bruce
  "Pioneers of the Old South West" Skinner
  "Letters of Polly the Pioneer" Nida

- "Ox Team Days on the Oregon Trail" Meeker
- 'The White Indian Boy 1dan
- "The Boy Lorty Niners McNal
- "With Kit Carson in the Rockies McNeil
- 'Diantha's Ouest Knipe
- In Texas with Davy Crocked McNel

#### CIVIL WAR IN THE UNITED STATES

- I Causes leading to conflict
  - (A) Question of secession
    - I Work of Daniel Webster

(a) Reply to Hayne

- 3 Lincoln's zeal for preservation of the union
- (a) Lincoln-Douglas debate
- 2 John C Calhoun's opposition
  - (a) Doctrine of States' Rights
- (b) Doctrine of Nullification

- (B) Question of slavery
  - I The abolition movement
  - 2 Repeal of the Missouri Compromise
- 3 John Brown's raid
- II Election of Abraham Lincoln as President
  - (A) Life of Lincoln
  - (B) Secession of South Carolina
    - I Formation of the Southern Confederacy
  - (C) Lincoln's call for volunteers
  - (D) Declaration of a blockade of the southern ports

#### III Civil War

- (A) Battle of Bull Run
- (B) Attempts of the Union forces to take Richmond
- (C) Engagement of the Monitor and the Merrimac
- (D) Ulvsses S Grant at Shiloh
- (E) Issuance of the "Emancipation Proclamation"
- (F) Battle of Gettysburg
  - I Leadership of Robert E Lee
- (G) Fall of Vicksburg
  - I Grant put in command of the Union forces
- (H) Grant and Lee at Richmond
- (I) Lee's surrender at Appomatox Court House
  - 7 Gallantry of Grant and Lee
- (T) Assassination of President Lincoln
- (K) Results of the war

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Lincoln, and His Son "Tad"
Grant and Lee Arranging the Terms of Surrender of the Confederate Army
The Monitor in Battle With the Merrimac in Hampton Roads
Andrew Jackson, Daniel Webster, and Henry Clay

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Daniel Webster, Defender of the Union Abraham Lincoln Vol VII, Page 228 Vol VII, Pages 244-249 PAGE 248

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#### PROBLEMS FOR STUDY - Elementary Grades

- I Do you think the Constitution should have made it impossible for a state to secode lea ettle l nor !
- 2 Why do you think slavery grew in the South, but died out in the North?
- 3 Why did the states faithest South leave the Union first?
- 4 Why is Robert E Lee considered one of the greatest generals in history?
- 5 If you had been a plantation owner in the South how do you suppose you would have felt toward the Emancipation Proclamation?
- 6 What qualities made Grant win so many battles?

#### PROBLEMS FOR STUDY - Upper Grades

- I Can you show that Abraham Lincoln was more interested in preserving the Union than in freeing ite slaves?
- 2 Why was it important that the Southern ports be block aded?
- 3 How do you feel about John Brown's raid? Sherman's ride to the sca?
- 4 What do we mean by "states' rights"? Can you give instances in our time where the doctrine has been or is being applied?
- 5 Why must one say that geography played an important part in the Civil War?
- 6 What questions were settled by the Civil War? Do you think the results justify the sacrifice and suffering?

#### SUGGESTED ACTIVITIES

- I On an outline map show the important place-names connected with the Civil War
- 2 Make a map showing the slave and free states when the Civil War broke out
- Write an account of the issuing of the Emancipation Proclamation as it might have appeared in a Southern newspaper and in a Northern newspaper
- 4 Prepare special reports on each of the following
  - (a) The slavery question
  - (b) The Underground Railway
  - (c) States' Rights
- 5 Write a newspaper account of the assassination of President Lincoln
- 6 Make a book of "Great Men of the Civil War" Include those from both the North and South statesmen, military leaders, etc
- 7 As a backward survey the class might work out a large chart reviewing the Civil War Causes Leaders Events Results

or

Write the Story of the Civil War

or

Have a Civil War Program, using Civil War costumes songs stories, pictures etc

#### RECONSTRUCTION AFTER THE CIVIL WAR

- I Problems arising from the emancipation of slaves
  - (A) Freedom of slaves
    - 1 Addition of the Thirteenth Amendment to the Constitution
  - (B) Right of freed slaves to vote
    - 1 Addition of the Fourteenth and Fifteenth amendments to the Constitution

## HISTORICAL OUTLINES

- (C) Abuses of Negro rule in the South
  - Influence of "Carpet-baggers" and "Scalawags"
  - 2 Organization of the "Ku Klux Klan"
  - 3 Results of abuses
- II Resumption of normal activities
  - (A) In the North
    - I Growth in industrial activities
    - 2 Growth in mining activities in the West
    - 3 Migration to the West
      - (a) The "Homestead Acts"
    - 4 Development of railroads
      - (a) The Union Pacific, 1860
    - 5 Increase in output of coal, iron, and steel
    - 6 Use of electricity
      - (a) Trolley cars
      - (b) Telephone and telegraph
      - (c) Electric lights
    - 7 Invention of mowing and threshing machinery
    - 8 Growth into a vast industrial unit
  - (B) In the South
    - r Restoration of homes, credit, and employment
    - 2 Care of liberated slaves
    - 3 Gradual emerging of a new South
      - (a) Oil wells
      - (b) "King Cotton"
      - (c) Small farms
      - (d) Industrial activity
- III Impeachment of Andrew Johnson
  - (A) Causes of impeachment
  - (B) Acquittal
- IV Stabilization of United States currency
  - (A) Redemption of greenbacks
  - (B) Equalization of gold, silver, and paper moneys
  - V Reform of the Civil Service
    - (A) Civil Service Act under President Arthur

#### RECONSTRUCTION AFTER THE CIVIL WAR

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II Vol VII, Pages 255-256

Picture References - THE NEW WONDER WORLD

Airplane Dusting Cotton Field for Boll Weevil Destruction

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#### PROBLEMS FOR STUDY — Elementary Grades

- I What problems did the South have to face after the Civil War? The North?
- 2 If you had visited in the South following the Civil War what conditions of living would you have found?
- 3 How does life in the South to-day differ from life then?

#### PROBLEMS FOR STUDY - Upper Grades

- If Lincoln had not been assassinated, what might the story of "Reconstruction" have been?
- 2 Why was it easier for the North to recover from the effects of the war than the South?
- 3 If you had been a landowner in the South, how would you have reacted to Negro rule?
- 4 Why was there such a great indistrial "boom" following the Civil War?
- 5 How did the Second Industrial Revolution affect our present civilization?
- 6 Would you have meed the impeachment of President Johnson?
- 7 Why was it necessary to stabilize our money system following the Civil War?
- 8 Do you believe the Civil Service Act served its purpose?

#### SUGGESTED ACTIVITIES

- Have a debate in which you decide whether Lincoln's plan of reconstruction was better than the one finally adopted
- 2 Write a letter from a child living in the South following the Civil War to a child in New I ngland telling of life in the South
- 3 Write an advertisement to induce "Homesteaders" to go West
- 4 For a backward survey make a series of pictures or cartoons showing the problems and events of this period

Example — The Thirteenth Amendment to the Constitution

#### THE UNITED STATES SINCE THE CIVIL WAR

- I First administration of Grover Cleveland
  - (A) Life of Cleveland
  - (B) Repeal of the Tenure of Office Act
  - (C) Opposition to high protective tariff
  - (D) Establishment of the Interstate Commerce Commission
  - (E) Defeat for second election by Harrison
    - 1 Passage of McKinley Act, 1890
- II Re-election of Grover Cleveland, 1893
  - (A) Passage of the Wilson Bill
  - (B) War on trusts
  - (C) Panic of 1893
  - (D) Venezuelan boundary dispute
- III Election of 1897
  - (A) The money question
    - 1 Nomination of William Jennings Bryan
    - 2 Success of the Cleveland administration
      - (a) William McKinley's election as president
- IV Interference of the United States with Spain on behalf of Cuba
  - (A) Spanish treatment of Cuba
  - (B) Causes of United States' intervention
  - (C) Sinking of the Maine
    - 1 Recognition of Cuban independence by the United States

- (D) War with Spain
  - 1 Dewey's victory at Manila
  - 2 The Rough Riders' victory at San Juan Hill
    - (a) Work of General Leonard Wood
    - (b) Work of Theodore Roosevelt
  - 3 Defeat of the Spanish war fleet by the Brooklyn and the Oregon
  - 4 Annexation of Hawaiian Islands by the United States
  - 5 General Torral's surrender to General Shafter
  - 6 Terms of peace treaty
    - (a) Ceding of Puerto Rico, Guam, and the Philippines to the United States by Spain
    - (b) Payment of twenty million dollars to Spain by the United States
- V Formation of a government for the Philippines under the leadership of Judge William H Taft
- VI Administration of President Theodore Roosevelt
  - (A) Story of his life
  - (B) Building of the Panama Canal
  - (C) Conservation policy
  - (D) Opening of the Great American Desert
  - (E) Interest in election of William Howard Taft
- VII Roosevelt's opposition to policies of President Taft
- VIII Election of 1912
  - (A) National Democratic Convention
  - (B) Results of the election
  - IX First administration of President Wilson
    - (A) Life of Woodrow Wilson
    - (B) Passage of the Underwood Tariff Bill
    - (C) Addition of the Sixteenth Amendment to the Constitution
    - (D) Creation of the Federal Reserve System
    - (E) Trouble with Mexico
      - I Roosevelt's attitude toward Wilson's policy
    - (F) Outbreak of the World War
    - (G) Re-election of Wilson as president

#### X World War I

- (A) Causes
- (B) America's early policy
  - I Roosevelt's criticism of Wilson's attitude
- (C) Sinking of the Lusitania
- (D) Declaration of war against Germany by the United States
- (E) American activities
  - I Preparations
  - 2 Drilling
  - 3 Raising money
  - 4 Transportation of soldiers to France
    - (a) Help of allied navies and United States' navy
    - (b) Effect on the allies

- ς America in Γrance
  - (a) Arrival of forces
  - (b) Divisions of American army
  - (c) Battle of Chateau-Thierry
  - (d) Capture of Germans in Belleau Wood
  - (e) Taking of Vaux
  - (f) Story of a wounded soldier
  - (g) The "Lost Battalion"
  - (h) Adoption of helpless French children by American soldiers
  - (1) Sergeant York's heroism
  - (1) Horses and mules used in France
  - (k) American aviators
- (I) End of the war
- (G) Extent of American losses
- (H) Terms of peace treaty
  - r President Wilson's work
- (I) Membership in League of Nations rejected by Congress

#### XI The Pan-American Union

- (A) Simon Bolivar's dream
- (B) Approved by Henry Clay
- (C) First Conference at Panama, 1826
- (D) Progress made at other Congresses
- (E) The Monroe Doctrine
- (F) The Act of Havana
- (G) Support given the United States in World War II

## XII The United States, 1918-1941

- (A) Post-war prosperity
- (B) Business depression and defeat of President Hoover for re-election
- (C) Administration of President Franklin D Roosevelt
  - 1 "New Deal" policies
  - 2 Supreme court decisions affecting New Deal program
  - 3 Election of Franklin D Roosevelt for third term as President

#### XIII The United States and World War II

- (A) Aid to the embattled democracies
  - I Lend-Lease Law
- (B) National Defense
  - I The limited national emergency
    - (a) Defense production
    - (b) Selective Service Act—Conscription
  - 2 The unlimited national emergency
    - (a) Strengthening of armed forces
    - (b) Acquisition of additional coastal and foreign military bases

- (C) The United States enters the war
  - 1 Japan attacks Pearl Harbor
  - 2 Philippines fall to Japan
  - 3 Declarations of war
  - 4 Sea and air battles
  - 5 Expeditionary forces
    - (a) In the Pacific
    - (b) In North Africa
    - (c) In Sicily and Italy

## THE UNITED STATES SINCE THE CIVIL WAR

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#### PROBLEMS FOR STUDY - Elementary Grades

- I Why was the laying of the first Atlantic cable an important event in world history?
- Why did Cuba want her independence?
- What were the contributions of Theodore Roosevelt to his country's welfare?
- 4 Why was it important for the United States to build the Panama Canal?
- Why did the United States enter World War I? World War II?
- 6 Do you see why the United States and South America are interested in the Pan-American I now?

#### PROBLEMS FOR STUDY - Upper Grades

- I How did Cleveland's administration endeavor to control "Big Business"?
- 2 Compare the Panic of 1893 with that of 1930
- 3 On what grounds did the United States justify her intervention in Cuba? Have there been similar instances in history?
- 4 Why did some people, both at home and abroad, regard McKinley's policy as "imperialistic?
- 5 Of what value to the United States is Hawaii? Alaska? Puerto Rico?
- 6 Why was Wilson's administration an important onc?
- 7 What did President Franklin D Roosevelt do to make good his promise of a New Deal?
- 8 What did the United States do before entering World War II to oppose the Aus? After entering?

#### SUGGESTED ACTIVITIES

- I On an outline map of the world show
  - (a) The Panama Canal
  - (b) Alaska

  - (c) Guam

- (e) Hawan
- (f) Philippines (g) Puerto Rico
- (d) Cuba 2 On an outline map of Europe show the location of at least twenty of the principal place-names
- 3 Have a debate on whether the Philippines should have been given their independence after the Spanish-American war
- A Make cartoons illustrative of each of the following ideas
  - (a) The Atlantic cable connects two continents

connected with World War I or World War II

- (b) The American Soldier in World War I and in World War II
- (c) Theodore Roosevelt Builds the Panama Canal
- (d) Woodrow Wilson pleads for a Strong League of Nations
- (e) America Grows From Thirteen Small Colonies to a World Pover
- (f) The Age of the Machine in America
- (g) The Pan-American Union as a Means of International Good-Will
- (h) Modern America's Responsibility to Defend Democracy
- 5 Write the story of the "Building of the Panama Canal"
- 6 Make pictures of the "Building of the Panama Canal"
- Construct a model of a canal lock and show the class how it works
- 8 Write to the Pan-American Union at Washington for information about their activities
- presented to the class in an original way as a summary or review For example one group might act as the Democratic or the Republican party and dramatize a National Convention another group might present original tableaux showing the United States as a "good neighbor of the other American republics, etc

## A NEW PERIOD OF DISCOVERY AND EXPLORATION

- I Polar exploration
  - (A) Nansen reaches "Farthest North"
  - (B) Peary reaches the North Pole
  - (C) Amundsen reaches the South Pole
  - (D) Scott's expedition reaches the South Pole
  - (E) Byrd flies over both Poles
  - (F) Byrd's second Antarctic expedition explored the South Polar region
- II Man reaches new heights and depths
  - (A) Stratosphere flights
  - (B) Bathysphere dives
- III Other twentieth century exploration
  - (A) Mountain climbers conquer Mount Logan
  - (B) United States Geological survey explores the Grand Canyon and rapids of the Colorado river
  - (C) Development of air lines
  - (D) Stefánson and the Eskimos
  - (E) Howard Carter discovers tomb of Tut-ankh-amen

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Ten Miles Up — Half a Mile Down	Vol IV, Pages 390-392

## PROBLEMS FOR STUDY - Elementary Grades

- I Why do explorers go to the Arctic regions?
- 2 What preparations must an arctic exploration party make?
- 3 If you were given a choice of flying with Lindbergh around the world or going with Bird to "Little America" which would you choose? Why?
- 4 What do we mean when we talk about conquering the air?
- 5 Do you think the time will ever come when there will be nothing left to explore?

## PROBLEMS FOR STUDY - Upper Grades

- I Of what significance are polar expeditions?
- 2 Do you think the development of transatlantic flights will open the way to better international relations?
- 3 Is it true that "Westward the course of empire takes its way"?
- 4 What do you think is the future of air tracel?
- 5 Has there ever been a period in history when man didn't want to explore and discover?
- 6 In what fields do you think future exploration and discourries will be made?

#### SUGGESTED ACTIVITIES

- I Gather together clippings, pictures, stories, magazine articles, etc., that will tell the story of man's attempts to conquer the Arctic regions
- 2 Tell your class the story of Byrd at the South Pole
- 3 Gather articles, clippings, pictures, etc., that tell of recent discoveries in all fields. Keep these in a scrapbook of present-day discoveries. Add to this as you find new material
- 4 On a map of the world, color in places that have been never or only slightly explored
- 5 As a backward survey plan an exploratory trip to one of these places Decide why you wish to go what to take what not to take and why, routes, etc,

or

Have a forum of modern explorers Let each pupil represent some modern explorer and discuss and tell about his adventures and discoveries

6 Finish your book on "History of the United States" and bring your time line up-to-date

#### HOW THE UNITED STATES GOVERNMENT IS ORGANIZED

- I The Constitution as a basis
- II The executive branch of the Federal Government
  - (A) The President
    - I How elected
    - 2 Term of office
    - 3 Duties
  - (B) The Vice-President
    - I How elected
    - 2 Duties
    - 3 How he becomes president
  - (C) The Cabinet
    - 1 State Department
      - (a) Chief officer
      - (b) Duties

- 2 Treasury Department
  - (a) Activities
- 3 War Department
  - (a) Jurisdiction
- 4 Department of Justice
  - (a) Importance
  - (b) Federal Bureau of Investigation
  - (c) Duties
- 5 Post Office Department
  - (a) Service
  - (b) Activities not connected with moving of mail
  - (c) Chief executives
- 6 Navy Department
  - (a) Activities
  - (b) Importance in international relations
- 7 Department of the Interior
  - (a) Contribution to welfare and improvement of the nation
- 8 Department of Agriculture
  - (a) Growth during the last fifty years
- o Department of Commerce
  - (a) Activities
- 10 The Labor Department
  - (a) Need for
  - (b) Activities
- II Other executive branches
  - (a) Library of Congress
  - (b) Smithsonian Institution
  - (c) Civil Service Commission
  - (d) Variety and scope of activities

## III The legislative branch of the Federal Government

- (A) Congress
  - 1 The Senate
  - 2 The House of Representatives
  - 3 How members are selected
  - 4 Duties
  - 5 At work
    - (a) Committees
    - (b) Introduction of bills
    - (c) How a bill becomes a law
  - 6 A visit to the Congress of the United States

## IV The judiciary branch of the Federal Government

- (A) Why courts are necessary
- (B) Divisions of the judiciary
  - 1 Supreme Court
    - (a) A visit to the Supreme Court
  - 2 Circuit Courts
  - 3 District Courts
  - 4 Circuit Court of Appeals
  - 5 Court of Claims
  - 6 How an appeal is made from a lower to a higher court

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#### SUGGESTED PROBLEMS AND ACTIVITIES

- I How may the Constitution be amended?
- 2 What are the steps in making a law? Show this by chart or graph
- 3 Why cannot Congress suspend a "Writ of Habeas Corpus? ?
- 4 Under what circumstances may the President be removed from office?
- 5 What do we mean when we speak of the jurisdiction of the Federal and Supreme Courts?
- 6 When is a case a civil case? When is it a criminal case? How does each branch of our judiciary function in these cases?
- 7 Upon what six essential principles does our constitutional government seem to be based?
- 8 What special powers are reserved to the Senate? To the President?
- 9 Is it a good thing that states are not permitted to enter into treaties with other countries? Will
- 10 What departments in the President's Cabinet seem absolutely essential? Are there any that could be dispensed with? Are new ones being considered?
- II How does our Constitution provide a system of checks and balances?

# THE ROLE OF CURIOSITY IN THE DEVELOPMENT OF PURPOSEFUL READING

By LAURA ZIRBES

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PARENTS need hardly be told that children are typically curious about things which they do not understand, but the educational significance of this curious, questioning attitude is too often improperly realized by parents and even by teachers. Adult responses or evasions too often indicate preoccupation with other matters, impatience, lack of sympathy with the child's sincere need of help in understanding his world, or a desire to settle the matter under inquiry in a way which either fixes the mind or stops the child's thinking and turns him in on himself, or disturbs his confidence in those whose answers he cannot trust

This whole matter not only has very clear implications for development of character and personality, but also has some very definite bearings on reading. There is no better point of departure for reading than a child's sincere question. The curious child's question is the sign of an existing interest which may be guided and satisfied by reading. It is also the drive or urge which may be counted upon to ensure a purposeful, eager search for pertinent reading matter and thoughtful, selective attention to the material which promises to throw light on the question

Parents and teachers can, therefore, do better than answer children's questions. They can contribute much more by sharing the child's curiosity, and going with him on the quest for information, cultivating and encouraging the interest from which related questions may arise to lead the child out and on, meanwhile strengthening his interest in reading, his persistence in purposeful effort and his sincere regard for anyone who cooperates in the quest and enjoys it with him

Parents and teachers need not be so called walking encyclopedias to make the most of their children's questions. Indeed they may preserve their self-respect even if they cannot give sound answers to such questions, if they will but shun the role of an authoritative source of all knowledge, and strive to develop in their children a discrimination in the selection of reliable sources of information by seeking for and in such sources with their children.

The modern school or home is not equipped for the education of children if it does not provide authentic sources of reliable information about the world in which we live, in a form which is interesting and accessible to children

#### THE NEED FOR INFORMATIONAL BOOKS

The modern child has not really learned to read until he uses such informational books as substitutes for first-hand observation and experience. This is quite another aspect of reading ability than that represented by fluent oral reading of stories, and has its own course of development, its own suitable factual material, its own type of

satisfaction, and its own outward signs of progress School textbooks and formal lessons are not adequate to the need. They are too prone to present a digested organized body of subject matter which has little relation to the emerging curiosity and questionings of children. They are not written as sources to be consulted but rather intended to be mastered from beginning to end, as the significant gist or summary of facts in a single field of knowledge. Tew children can be expected to seek information from such condensed, abstract texts without the well-planned guidance of a trained adult who knows how to supplement the text with vivid concrete data or to lead children to seek such related data outside the textbook.

For this reason the modern school and the modern home need ready access to a rich storehouse of reliable, interesting, informational material copiously illustrated to ensure correct imagery, and carefully edited to facilitate the location and ready comprehension of information on a wide range of problems which enlist the curiosity of children

No one book could hope to accomplish this purpose, and no single author could hope to do justice to all the fields of experience and knowledge that should be drawn upon. Eleven large volumes were required by the editors and writers of The New Wonder World to put at the disposal of parents and teachers a comprehensive source of guidance and service in dealing with children's questions.

Most good schools provide further materials for similar use so that children may learn to use and compare a number of sources. Parents who assure their children a rich variety of first-hand experiences supplemented by expert personal guidance and excellent school experience would be the last to consider good informational materials unessential.

#### CHILDREN'S QUESTIONS

Parents who have not themselves had the educational advantages which enable them to deal with their children's questions satisfactorily should make up for this disadvantage to themselves and their children by the consistent use of at least one good juvenile reference set with their children. When parents or teachers enter into this use of reference material as happily and as naturally as they join in conversation, games and sports the results are very different from those which may be expected from authoritative prodding. Tailure to appreciate that the child has taken the initiative when he asks a question, shuts off an opportunity and a challenge which need not be postponed or missed if the appropriate references are at hand.

But children's verbal questions are not the only reveal-

ing index of their enthusiasms. Those whose curiosity and attention are centered on practical play interests give parents and teachers a cue for the timely introduction of pertinent sources of information which will contribute to their development as well as to their play.

The boy who spends a considerable portion of his indoor play time with a toy train should not be asked to put it away in order to look at pictures of trains but a more timely reference may well be made to the pictures and the wealth of information about real railroads in Volume IV, which also offers similar material for those whose play interests are centered on ships or on bridges. Similarly Volume III offers interesting points of contact for the child who loves animals, and provides an abundance of suggestions for outdoor observations excursions and nature study projects. Volume VI will interest the child who loves sports and games as well as those who are in terested in stamp collections, puzzles, cooking or handicraft.

A number of volumes offer interesting material on a wide range of topics studied in school. Thus the child's school interests furnish the urge and direction for informational reading and picture study, while the accessibility and attractiveness of adjacent material is bound to stimulate broader interests.

Parents and teachers will no doubt appreciate further suggestions as to the part which they may take in order to secure for children the greatest benefit and the maximal development of their abilities through the successive levels of childhood

#### EARLY USE OF PICTURES

Infants and children under school age may well be en couraged to get most of their information from first hand experience and simple colorful picture books. Precocity in the use of books is unwise because it fails to realize and foster the prior need of vivid first hand experience Nevertheless, six year olds before they can or should read, can acquire desirable attitudes toward books if some of their first hand interests are permitted to suggest a feof the clear, large full page illustrations about which they will invariably ask questions if they are mature enough to profit by the experience. If the teacher or parent has himself read the information on adjacent pages and the legend under the picture he is in a position to reply effectively to the child's questions even though he had no prior information on the subject. Increasing attention and interest are signs of growth, and subsequent spon thneous reference to the topic or the book is a further in dication that the guidance has been sound. The first evidence of waning attention or boredom should be taken is a sign of fatigue or strain or inability to profit further from the experience until some new situation leads to another spontaneous use of the illustrative material in a similar way

Quite unconsciously the six year old thus picks up the ability to entert un himself and stimulate his own thinking through the use of pictures and to select and appreciate books that serve this purpose to his sati faction. Perhaps the lack of guidance and the child's regular opportunity for observing adults who peruse come supple-

ments more consistently than an other pictures continued for the preoccupation of young children with the typic picture. This suggests the valors of converte with children about pictures of another sore particularly that that tell something of interest. By selecting for the purpose those that make a real appeal and per a might ach retivities the comic supplement could be eased on earth fivored place. Tastes and predispositions are the real to of recurrent, natural satisfying early experiences.

#### RIADING ALOUD

The rhythmic quality of an idult's or il readiff, may ctually contribute to a child's pleasure and facilitate in tention. The reader who really considers his child a a dience does not rush on mechanically from one scate accorparagion to the next without an almost imperceptible pluse for a reaction from his listeners or sone tactful attempt to keep his audience or rappert. The limits of the child's expectly for attention must be respected. The child's expectly for attention must be respected. The child's spont inconstitution must be repected. The child's spont inconstitution for a thorough the post of his own first hand experience must not be past poned until the reading of a whole section is completed nor must his requests for explanatory comment be deferred.

Gradually the span of attention will increase and the child will learn to wait for a good stopping place to a liquestions or to comment. He will participate more actively more spont ineously or more frequently in experiences of this sort showing more initiative in ore ability to sense and formulate questions and more subtined interest when read to by an adult. If the child actually attempts to read bits of the material himself there should be some comment to the effect that he will soon be able to read the book for himself and find y hat he wants in it. The adult should then be willing to stop or casionally to show the child exactly y here he tour direct tun fact and to reread the part in que tion.

Care should be taken not to point to one vord at a time or to read in a manner which breaks sentence and phrases up into jerkily read yord sequences. Reading should sound exactly like conversation against word pointing it may be vell to use a blank card horizontally as a marker placing the cird bilog the s ces we lines of print so that the child may find or keep th place if he wishes. At this stage long pronges foold r be read without some intervening discression of them informal sort. I ffort it rote ner original or to to o course be discoursed and formal recounting of the centent of a passage is quite as out of place as did of the le ming would be. If the child does no all que and interest himself in the matter is both as the dropped until some ne object of euro it = = = not the an ount of time spent or the area at circi end covered that determines the ed cative and expect jenence but rither the quality of joint new later. of voluntary attention and he regard vene child to the a notes a street freeze no me no by the attitude of the adult of the entire percentage. moment and the raule solution to rain at child's lead in end o expecting at a 1 

books as sources of information at the expense of interest in first-hand experience may be guarded against by guidance which brings in frequent references to the child's experience and proposes or encourages play experiences, drawing, printing, or construction in which new information is used

#### SCHOOL GUIDANCE

If a general familiarity with the concrete aspects of reference materials is fostered rather than forced, the eight- or nine-vear-old will apply and try out his developing reading ability to find out what he really wants to know. With proper school guidance he will realize that it is rather stupid to copy or learn information verbatim, and will interpret as he goes, selecting data pertinent to some inquiry or purpose that is clearly formulated in his own mind.

Guidance should help him to become increasingly able to locate what he needs by familiarity with the field covered in each volume, by use of the table of contents with its major divisions sub-divisions, and topical headings. Use should similarly lead him to employ the index and cross-references, to make timely and intelligent use of illustrations, legends, tables graphs and charts, and to relate these things to the reading matter.

Furthermore, through actual purposeful skimming in search of some definite thing he learns to select or ignore in terms of his purpose to adapt his reading rate to his purpose, to organize his material to some definite end, and to know when he has accomplished this end. He learns not to be content with such scraps of abstract information as are commonly found in textbooks nor to depend on what one book says without consideration of other available data. He also learns to use the dictionary to make sure he gets the right meaning when in doubt about words

However, he will not limit his learning to the topics of assigned lessons. He will realize that his own curiosity may open up new sources of interest and new realms of experience. If properly guided his interest in informational silent reading will parallel his developing appreciation of good recreational reading matter.

The typical ten-vear-old should not only be able to use a reference set of this sort successfully in a variety of ways but he should find increasing satisfaction in doing this on his own initiative until he is old enough to find similar satisfaction in the free use of reference material prepared for adults

#### CURIOSITY SATISFIFD

Thus the whole period of childhood is enriched by the legitimate satisfaction of curiosity, while the very manner of guidance in securing this satisfaction makes for the continuance of purposeful reading and the consequent development of discriminating readers

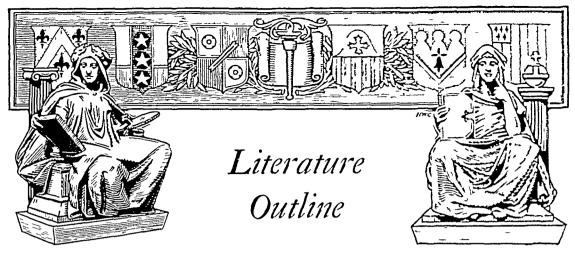
An idle question prompted by some passing incident may receive curt dismissal, it may elicit a superficial or evasive reply, or it may be used to initiate a genuine quest for the answer to a significant related problem, it may instigate some significant practical use of the information

A child's random question about caterpillars received wise consideration when instead of a hasty answer the child was handed a book, for here he found more than an answer and thus came to make a special study and an un usual collection of butterflies. A group whose interest was challenged by a story of knighthood and a timely trip to a museum, entered wholeheartedly into a study of feudal life which eventuated in a miniature representation of the life of serfs and knights, and enduring insight into the social implications of feudalism as contrasted with our own industrial society.

A child who asked if true stories could possibly be as thrilling as mystery stories were, was introduced to stories of adventurous lives of explorers and intrepid scientists, with the result that his reading interest veered from inferior exciting literature to biography and autobiography, and his negative attitude toward school work evolved into a ventable passion to enter the Massachusetts Institute of Technology where he has since made an excellent record in preparation for a scientific career

A class discussion of the different houses observed in a morning walk around the block, provided the initial impetus to an extended study of homes in many lands

The inquiring mind needs timely material upon which it may thrive and develop as surely as the growing body needs regular and suitable nutriment. Few adults can hope to assume the responsibility for developing the inquiring minds of modern children empty-handed. A storehouse of suggestion and reliable information in the form of a comprehensive, up-to date reference library which children can and will learn to use freely is indeed an indispensable first aid to progressive parents and teachers



#### I The Makers of Literature

- (A) Earliest literature
  - 1 Poetry of the bards

  - 3 Caedmon

- 4 The venerable Bede
- 2 Beginnings of the "Reading Day" 5 Chaucer and his "Claterbury Liles"
  - 6 Wyclif and the English Bible
  - 7 Malory and his "Morte d Arthur'
- (B) The Elizabethans
  - 1 Edmund Spenser
  - 2 Shakespeare
  - 3 Ben Jonson

- 4 Milton, the blind singer
- 5 John Bunyan, the tinker
- (C) Dean Swift and "Gulliver's Travels"
- (D) Robert Burns
- (E) Twelve English Story Tellers
  - 1 Daniel Defoe
  - 2 Jane Austen
  - 3 Sir Walter Scott
  - 4 Edward Bulwer
  - 5 Charles Dickens
  - 6 William Makepeace Thackers
- 7 Charles Reade
- 8 Charles Kingsley
- o Charlotte Bronte
- 10 Lmily Bronte
- 11 Elizabeth Stevenson Gaskell
- 12 Mary Ann Evans ("George Ebot )

- (Γ) With the Poets
  - 1 Wordsworth and Coleridge
  - 2 Byron
  - 3 Shelley

(G) In America

- 1 James Fenimore Cooper
- 2 Washington Irving
- 3 William Cullen Bryant
- 4 Ralph Waldo Emerson
- 5 Nathaniel Hawthorne
- 6 Henry David Thoreau
- 7 Henry Wadsworth Longfellow
- 8 James Russell Lowell

- 4 Keats
- 5 Tennyson
- 6 The Brownings
- o John Greenleaf Whittier
- 10 Oliver Wendell Holmes
- 11 Edgar Allan Poe
- 12 Walt Whitman
- 13 Sidney Lanier
- 14 Emily Dickinson
- 15 Samuel Clemens ("Marl T. air

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II	Verse and Story for the Smaller Child			
	<ul><li>(A) Bedtime Verse and Mother Goose Rhyn</li><li>(B) Poetry for very little people</li><li>(C) Stories for the story hour</li></ul>	(E) Three Bible Stories Retold		
$\Pi$ I	Folk Literature			
	(A) Fables			
	<ul> <li>The Town Mouse and the Countr Mouse</li> <li>The Ant and the Grasshopper</li> <li>The Two Crabs</li> </ul>	<ul> <li>The Milkmaid and Her Pail</li> <li>The Wolf in Sheep's Clothing</li> <li>For other fables, see page references</li> </ul>		
	(B) Fairy Stories  1 The Emperor's New Clothes — Andersen 2 The Nightingale — Andersen 3 Hans in Luck — Grimm	<ul> <li>5 Snow-White — Grimm</li> <li>6 Other tales by Grimm</li> <li>7 Dick Whittington and His Cat</li> <li>8 Jack the Giant-Killer</li> </ul>		
	4 King Thrushbeard — Grimm			
	(C) Legendary and Hero Stories  1 St George and the Dragon 2 Aladdin and the Wonderful Lamp 3 Ali Baba and the Forty Thieves 4 The Siege of Troy	5 The Minotaur 6 Perseus 7 King Arthur and the Table Round 8 The Adventures of Robin Hood		
	(D) Folk Stories of Different Lands			
	<ul><li>The Snow-White Cow</li><li>The Hyena's Guest</li><li>Man's Best Γriend</li></ul>	<ul> <li>4 The Fox and the Tiger</li> <li>5 The Princess Nang Kam Ung</li> <li>6 For other folk stories, see page references</li> </ul>		
IV	Stories for the "Story Hour"	1 3		
	(A) True Stories and Stories That Could Be	True		
	<ul> <li>Woof, the Naughtiest Dog in Tov</li> <li>Woof Visits Poor Poll</li> <li>Mischief</li> <li>"Why Jackson"</li> <li>Susanna's Auction</li> <li>The Way Doll</li> <li>An Interrupted Celebration</li> <li>A Bad Thaw</li> </ul>	The Man Who Wouldn't Sell His Pumpkin The Coming of the Circus The Seventeen Cats The Bedquilt Marash, Son-of-Palok How Hereward Won Mare Swallow Scrapes		
	<ul><li>9 Christmas Luck</li><li>10 Hitty, Her First Hundred Years</li></ul>	20 Brother and Sister 21 Christmas Dinner at Bob Cratchit's		
	The Sewing Circle The Great Journey	22 A Skating Race in Houand 23 Tom Becomes a Water-Baby 24 The Children of Blentarn Ghyll		
	<ul> <li>(B) Animal Stories</li> <li>I The Big Orang Tells His Story</li> <li>2 The First Performance</li> <li>3 The Home Life of the Young Ladand the End of It</li> <li>4 A Fox Cub as a House Guest</li> </ul>	Beauty"  The Cobra's Treasure		
	<ul><li>5 Jimmie, the Story of a Black Bea</li><li>6 Allenby's Transport Camels</li></ul>	r Cub 11 Why Old Baboon Has That Kınk ın Hıs Taıl		

### (C) Stories of Adventure

- I The Capture of the "Hispaniola
- 2 The Swiss Family Robinson is Saved from Shipwreck
- 3 A Narrow Escape
- 4 Heavy Weather
- 5 Ned in Africa
- 6 An Adventure Before Breakfast
- 7 Life on a Whaler
- 8 In the Coils of Death
- 9 Baron Munchausen A Trip to the Moon
- 10 Captain Scott's Expedition to the South Pole 24
- 11 In a Burmese Prison
- 12 Elephant Hunting in Africa With Livingstone 26 Ten Miles Up—Half A Mile Down
- 13 Saved by Feigning Death
- 14 The Perils of Whale Hunting

#### (D) Old Tavorites from the Classics

- I The Story of the Tempest
- 2 The Vicar of Wakefield's Horses
- 3 Consternation in Cranford
- 4 The Rescue of Lorna Doone
- 5 Dobbin of Ours from "Vanity Fair"

#### (E) Bible Stories

- I Two Stories of Jacob, Isaac's Son
- 2 The Boy Samuel
- 3 A Boys' Friendship

## V Biography

- (A) When They Were Little
  - I Bayard Taylor, Who Wis Always Busy
  - 2 Hans Christian Andersen
  - 3 Maria Mitchell
  - 4 Kate Greenway
  - 5 William Makepeace Thackeray
  - 6 Robert Louis Stevenson
  - 7 Lucy Larcom

#### (B) Lives Worth Knowing

- 1 Rudyard Kipling
- 2 Andrew Carnegie
- 3 Oliver Goldsmith
- 4 Jane Addams
- 5 Elizabeth Blackwell
- 6 Michael Faraday
- 7 John Muir
- 8 Johnny Appleseed
- o Edward Bok

- 15 Leaves from an Lleph int Hunter > Tournal
- 16 Charged by a Rhinoceros
- 17 The Tiger's Cive
- 18 Hand to Hand with a Punther
- 10 Riding an Alligator
- 20 A Cobra as a Bed-Lellov
- 21 The Captive of the Iroquois
  - Sergeant York's Lyploit
- 23 The Ice Patrol
- The Seven Devils of Mount Login
- 25 Battling the Canyon
- 27 With the Mounted Police
- 28 Adventures to the Lield of Medicine
- 6 The Poulps, from "Twenty Thou sand Leagues under the Sca
- 7 Little Annie's Ramble from "Twice-Told Tales"
- 8 Robinson Crusoe
- 9 Cervantes and "Don Quivote
- 4 The Story of Numin
- 5 The Child Jesus
- 8 Sir Joshua Reynolds
- o Nathaniel Hawthorne A Quiet Box
- 10 Louisa May Alcott
- II The Taylors of Ongar
- 12 Little Four-o Clock-in-the-Morning
- 13 Florence Nightingale
- 14 Charles Dickens
- 10 Thomas Edison
- 11 James Barrie
- 12 William Cray ford Gorgas
- 13 I uther Burbank
- 14 James Jerome Hill
- 15 Chauncey Yello Robe
- 16 Christopher Carson
- 17 Captain Lddie Rickenbacker

## (C) Great Scientists

- I Thales, the First Scientist
- 2 Democritus, the Father of Physics
- 3 Leonardo da Vinci
- 4 Galileo
- 5 Archimedes
- 6 Copernicus
- 7 William Harvey
- 8 Isaac Newton

## (D) Great Musicians

- 1 Handel
- 2 Bach
- 3 Haydn and Mozart
- 4 Beethoven
- 5 Schubert

### (E) Great Painters

- 1 Fra Angelico
- 2 Botticelli
- 3 Leonardo da Vinci
- 4 Raphael
- 5 Titian
- 6 Velasquez
- 7 Goya
- 8 Rubens
- o Rembrandt
- 10 Durer

## (F) Great Sculptors

- 1 Pheidias
- 2 Ghiberti
- 3 Donatello
- 4 Della Robbia

## (G) Stories of Other Great Men

- 1 Peary at the Pole
- 2 David Livingstone
- 3 The Story of Columbus
- 4 Galahad in Labrador Grenfell
- 5 Byrd the Great Adventurer

- 9 James Watt
- 10 Louis Pasteur
- II Exploring for Science, Charles
- 12 Thomas Edison
- 13 Alexander Graham Bell
- 14 Professor and Madame Curie
- 15 For others, see page references

## 6 Mendelssohn, Schumann and Chopin

- 7 Brahms and Tschaikowsky
- 8 Wagner and Verdi
- 9 Modern Composers
- 11 Holbein
- 12 Van Dyck
- 13 Reynolds
- 14 Gainsborough
- 15 Turner
- 16 Corot
- 17 Rousseau
- 18 Millet
- 10 Whistler
- 20 Sargent
  - 5 Michelangelo
  - 6 Rodin
  - 7 St Gaudens
  - 8 For others, see page references

## 6 Henry Ford

- 7 Sun Yat-Sen
- 8 Mahatma Gandhi
- 9 English story tellers and poets
- 10 American story tellers and poets

## VI Stories that can be used in connection with other subjects in the curriculum

- (A) The Story of Music
  - 1 How Music Began
  - 2 How Music Grew
  - 3 How Musical Instruments Developed
- 4 Great Composers
- 5 Christmas Carols

## (B) Painting

(C) The Story of Sculpture

- (D) History and Geography
  - 1 Indian Folklore
  - 2 Myths Explaining the Creation of the World
    - (a) Babylonian
    - (b) Greek
    - (c) Norse
    - (d) Japanese
    - (e) Indian
  - 3 Stories with Historical Background
    - (a) The Story of Marco Polo
    - (b) The Story of Columbus
    - (c) The Story of Leif the Viking
    - (d) A Thousand-Mile Race with Hostile Indians
    - (e) Crossing the Colorado Desert
    - (f) The Massacre of Custer s Γroops
    - (g) The Lost Battalion
    - (h) The Γirst Armistice Day
    - (1) A Wonderful Discovery by a Child
    - (j) A Meeting of the Ages
    - (k) The Mayas
    - (l) Modern Cave Dwellers in North Mrica
    - (m) The Maori of New Zealand
- (E) Nature Study
  - I Animal stories to use in connection with nature study
    - (a) The Oueen Bee
    - (b) When My Lady Spring Comes
    - (c) Ruth and the Wonderful Spinners
    - (d) A Funny Gentleman and What He Said
  - 2 Selections to use in connection with nature study
    - (a) Red-Letter Days Out-of-Doors
    - (b) The First Tramp Afield for Flowers
    - (c) Out to the Salt Marsh
    - (d) An Ideal Christmas
    - (e) The Dance of the Mayflies
    - (f) The "Little Chief Hare ' or Conv
    - (g) Chipmunk s Habits
    - (h) The Spring Peepers

#### VII Poetry

- (A) A Peep at Poetry for the elementary school
  - Poems by Rose Fyleman Vachel Lindsay Nancy Byrd Turner Lugene Hield Walter de la Mare, and others
- (B) With the Ballad Makers
  - r Poems by Jovee Kilmer, Christopher Morley Alfred Noyes John Masefield Lewis Carroll, and others
- (C) Some Old Tavorites
  - 1 Horatius at the Bridge
  - 2 Lochinvar
  - 3 Lord Ulin's Daughter
  - 4 The Charge of the Light Brigade
  - 5 The Diverting History of John Gilpin
- 6 Little Billee
- 7 The Wreck of the 'Hesperus
- 8 The Legend of Bishop Hacco
- o The Skelcton in Armor
- 10 Sheridan's Ride

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	(D)	Nonsense Verses  1 A Frog He Would A-W 2 Little Dame Crump 3 The Puzzled Centipede	5	The Old Woman The Man in the Moon Three Wise Men of Gotham
	(E)	Famous English Poets  Chaucer and his "Can Edmund Spenser Shakespeare Milton the Blind Sing Robert Burns the Pea Wordsworth and Coler Alfred Tennyson For others, see page re	terbury Tales" er sant Poet of Scotland idge	Three Wise Men of Gotham
	(F)	Famous American Poets  1 William Cullen Bryant 2 Henry Wadsworth Lor 3 John Greenleaf Whitti	igfellow 5	Walt Whitman Emily Dickinson For others, see page references
VIII		and Poems for Character De	n elopment	
	(A)	The Fables of Æsop		
	(B)	Stories from Andersen  I The Emperor's New C	lothes 2	The Nightingale
	(C)	Folk Tales of Many Lands  1 Man's Best Friend 2 How the Hare Helped 3 The Fox and the Tiger 4 A Covetous Neighbor 5 How the Hare Deceive 6 For other tales, see pa	d the Tiger	
	(D)	Purpose Stories  1 The Lion and the Mod 2 Hurry and Speed 3 How Strong Are You? 4 The Brahman, the Tig 5 The Hare and the Tor 6 For other stories of the	er, and the Six Judges toise	ces
	(E)	Stories of Real Life		
		1 A Boy Immigrant, Mi 2 Four Girls Who Won (a) Emma Willard (b) Mary Lyon 3 Hamlin Garland, A Bo 4 I Got Stage Fright	Victories (c) (d)	Clara Barton Helen Keller

(F) Poetry

1 Horatius at the Bridge

2 On! Sail On!

IX Stories to Play

- (A) A Royal Toy-Mender
- (B) The Tables Turned

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- (C) Caleb, the King's Cobbler
- (D) The Pied Piper of Hamelin

- (L) In the Court of King Arthur
- (Γ) The Knighting of Percevil
- (G) The Merry Play of the Cobbler and the King

X A Suggested Book List for the Child in the Home

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(E) Vol IX, Pages 315-320
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## SUGGESTIONS FOR USE OF LITERATURE IN "THE NEW WONDER WORLD" IN THE CLASSROOM

- I Have a free time when children can browse in the books and find and read stories and poems. It might be well for the teacher to begin by reading aloud one or two in order to introduce the group to the book.
- <sup>2</sup> Create frequent opportunities for the children to share stories and poems they read, discussing them informally
- 3 Have children read some of the stories so as to dramatize or make a moving picture to give in assembly or for another group
- 4 Have a poetry hour when either the teacher or children read humorous poetry to the group
- 5 Use the stories and verse that are related to content subjects so as to make the material more interesting, as, for instance, biography for use in science
- 6 Have a story hour when children invite another grade or group to hear their favorite stories or poems, or have an assembly where this is done
- 7 Use stories such as "Susanna's Auction, and "Rab and His Friends," for creating interest in the reading of whole books
- 8 Read one or two poems a day for two or three weeks, sometimes using the same poems, and at other times new ones. After a few have been read the children can choose one for reading. These should be read just for pleasure with little or no introduction or comment except what comes spontaneously from the children. At the end of two weeks have a poetry hour in which the group is given a chance to select the poems they have liked best for rereading. Then suggest that you have a poem that is easy to learn and ask if they would like to try it. Use "The Moon's the North Wind's Cooky" and have the children say it with you, first as a group, then individually. Stress the idea that the group has learned a poem and suggest that it might be fun for individual children to share with the group poems they have learned. Make plans for a weekly poetry hour, the contributions to be voluntary. Call attention to the poetry in The New Wonder World. During the next few weeks encourage children to read and learn poetry, and share what they have learned with the group. The teacher herself should repeat poems and verse to the group frequently. Out of this will probably grow a desire to read and enjoy and learn poems.
- Make the use of these literature materials such a happy and pleasurable experience that the children will turn again and again to The New Wonder World for verses and stories to read and enjoy

## READING IN SCHOOL AND AT HOME

#### WILLIAM S GRAY

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RECENT changes in teaching reading are among the most important of current school reforms. They include not only notable improvements in methods of teach ing children to read, but also far more interesting, stimu lating, and purposeful types of reading material. They affect not only the activities of the reading and literature periods, but of the content subjects and the library hour They insure not only better reading habits in elementary schools, but also greater power and efficiency in reading and study activities in secondary schools They make provision not only for help in required read ing assignments, but also for the stimulation and direction of free or voluntary reading by pupils both in school and at home. They relate not only to the reading needs and interests of good readers, but also to the deficiencies and hindicaps of those who read poorly. Such reforms are rapidly changing the narrow reading program of a decade ago into one of great breadth and excellence

Radical changes in teaching which affect instruction in all grades and in all subjects are usually not the result of a passing fad. In this case they are due to broader visions of what may be done for children in school and at home to new social demands, and to a clearer understanding of the problems involved in learning and teaching reading. A few examples may be helpful at this point. First, within the last two decades, the very nature of classroom activities has changed greatly. Instead of a series of formal exercises primarily for the mastery of facts and habits, education is thought of to day as a process of living in which enriching purposeful, satisfying experiences predominate. It follows that the reading activities in school should be stimulating and purposeful, and highly charged with interest.

In the second place, the school curriculum has been greatly expanded and enriched during recent years to provide vital experiences in various phases of living Whereas only one book was formerly used in each subject, to day many books and sources of information are provided. Indeed classroom and school libraries are commonly used in the study of a problem or in the preparation of an assignment. Such changes place new responsibilities upon the pupil. He must not only learn to read more fluently and intelligently than formerly but he must also read well for a wide variety of purposes.

In the third place, the need for and value of wide in dependent reading in child life has been clearly recognized. Studies made during recent years show that children read of their own accord for many worth while purposes, such as to satisfy interest and curiosity to searce specific information, and to inform or entertain others. Unfortunately, many boys and girls fail to develop such interests or they do not have access to the means of satisfying them. As a result they miss many of the joys and pleasures to which all children are entitled.

Well organized schools are attempting to provide generously for the reading interests of children. As will be emphysized later, teachers need the cooperation and specifichelp of parents in stimulating and directing the reading interests of boys and girls.

In the fourth place, the need of intellment reading in social life has greatly increased during recent years. It is now essential in familiarizing adults with current events with community and national problems and with American institutions ideals, and aspirations. It is also a means of making progress in one's vocation, of broaden ing one's range of information, and of securing pleasure and profit during leisure hours. It follows that as boxs and girls advance through the grades and high school they should acquire increasing interest in the problems with which good citizens are concerned. It is clear also that schools face the problem of developing reading habits to levels that were vaguely conceived and seldom at tuned in the past. I mally scientific studies of reading problems have added greatly to previous knowledge of the best methods and materials to use in teaching boxs and girls to read well. They supply a body of principles which have guided teachers in their efforts to develop a richer and more effective reading program. In the parigraphs that follow some of the essential phases of an improved reading program at school and in the hone vill be described

## ESSENTIAL PHASES OF AN IMPROVED READING PROGRAM

The first requisite is that the home provide a samulat ing reading atmosphere during the pre-school as well as during the school life of the child. This means that pur ents should take keen interest in reading and should provide attractive wholesome books and manazines. A child is fortunate indeed who is reared in such in environment His first interest in reading is acquired uncon cloudy as he observes father and mother read and enjoy ne vspaper magazines and books. Being of an imitative ratife to soon begins to look through bools or magazines him cli-His interest in them deepens if fother and most conbrother or sister, sit down with him frequently and contain the pictures to him. The next step is to read to the cried of a stones that relate to the pictures. Parents to have fellowed this plan report that the child often bring the best to have a favorite story read or an interesting the use explained. If no one is free to lelp him le son in es gove to a quiet corner where he looks with interecent experience tures and even attempts to read the somes. No large quently he netually makes some progress in lemma a read very simple material a lie attempts on silvery an interests. The child who is privileged to be a best penerces at lowers ally enter set of a hiller over

in reading fully developed. In the case of pupils who have not enjoyed such opportunities the school must make up the deficiency

As a rule, systematic teaching of reading should not begin before children enter the first grade. Experience has shown clearly that it is better to postpone daily work in that field until pupils have acquired (a) interesting experience relating to the things about which they will read, (b) considerable facility in good thinking and in solving simple problems (c) command of simple English sentences, (d) an oral vocabulary much broader than that used in early reading activities, (e) improved habits of enunciation and pronunciation, and (f) a genuine desire Most children of normal mental capacity who have had good home advantages or who have attended a kindergarten enter the first grade well prepared for Other children often need one, two or more months of carefully planned instruction in the first grade before they should be trught to read Much time may be saved in the end by postponing instruction in reading until pupils who develop normally have attained a mental age of six or more and are eager to learn to read

The early school environment of the child is of major importance in stimulating interest in reading and in securing rapid progress in learning to read. Fortunate indeed is the child who enters a school in which the teachers are keenly interested in children's stories and who have the capacity to inspire pupils to discuss and read about the things in which they are interested. As aids in achieving these results a reading table should be provided from the beginning of the first grade on which are displayed an interesting variety of picture and story books. Announcements should appear on the bulletin board daily which stimulate children to read independently Pictures should be hung on the wall with poems or stories attached which they illustrate Special periods should be provided regularly in which the teacher reads or tells interesting stories and in which similar activities are assigned to the children Other periods should be reserved in which the children gather around the reading table to look at interesting pictures or to read stories for sheer fun or pleasure. A few vears ago it was thought inadvisable for children to engage in pleasurable activities during school hours now realize that some of the most important attitudes and habits which the school can cultivate may be established successfully only through such activities This is especially true in the case of reading. Only to the extent that the child realizes that reading will contribute to his happiness and satisfy his needs will he put forth the effort necessary to learn to read well and acquire habits of independent reading thus laving the foundation for continuous enrichment of experience and intellectual growth

The methods used in teaching pupils to read are as important as the atmosphere of the classroom. It was formerly believed that the chief aim in teaching reading in the primary grades was to master the mechanics of reading. With a new vision of what the school may do for boys and girls, the chief aims to day are to extend and enrich the experiences of children through reading, to develop habits of good thinking and clear interpretation while reading and to stimulate keen interest in reading activities. To these ends the teacher makes wide use in

tenching pupils to read of material based on the actual experiences of children. She also selects books for her pupils to read which contain stories and informational material that are highly charged with interest and which can be read for purposes that appeal to them as significant and worthwhile. Furthermore, attention is concentrated from the beginning on the meaning or content of what is read, and the reading periods are characterized by good thinking, profitable discussions, dramatizations, and the solution of real problems

Children who make normal progress pass through three very significant stages or periods during the first grade in learning to read The first is usually called the pre-primer period in which pupils acquire keen interest in reading, a thoughtful reading attitude, and a small sight vocabulary Two types of reading material are usually used stories which grow out of the personal experiences of the pupils. and prepared lessons based on experiences common to most children and in which the vocabulary has been carefully controlled The second is known as the primer The chief aim of teaching during this period is the development of habits of continuous, meaningful reading Before this goal is achieved, it is necessary for most children to read several books of primer difficulty The number will vary of course, with the rate of progress of individual pupils The third is known as the first reader There are at least three important goals for this period First, the child should acquire the attitudes and habits which enable him to read with keen interest and absorption during free reading periods Second he should learn to read different types of material, such as good stories and interesting information. He should also im prove in reading both orally and silently and in reading of the study type. Third he should acquire interest in independent reading and devote some time daily to that activity of his own accord

While children are thus learning to read well in school, the home can cooperate to advantage. As a rule, it is advisable for parents to leave to the school the responsibility of laving the foundation of good reading habits during the pre-primer and primer periods However, it is very important that parents read to children frequently during these periods, talk with them about the interesting reading experiences they are having in school, and comment appreciatively on any progress in learning to read which they may exhibit Parents should also provide, if possible, interesting picture books and look at and enjoy the pictures with the children During the latter part of the first grade, parents should read less to the child and encourage him to read more to them Unless increasing responsibility is placed upon the child during this period he may develop too much dependence on others Furthermore, the child should now begin to show keen interest in reading to himself Parents may stimulate rapid progress in this connection by purchasing or securing from a library from time to time a few attractive, well illustrated books of primer or first render difficulty A few dollars spent by parents during the early school years of the child for simple books which he can read independently at home will aid greatly in promoting wholesome reading interests and in developing habits of independent reading In case parents note serious reading difficulties that are encountered by the child during the first grade period they should discuss them with the teacher

The second and third grades form a very important period in a valid reading program. During these grades the reading interests of pupils broaden notably and they make very rapid progress in the attitudes and habits on which good interpretation of meaning, accuracy, and in dependence in recognizing words rate of silent reading and fluent, accurate oral reading depend. By the end of the third grade, pupils should be able to read fluently and intelligently either orally or silently, informational and literary materials such as are usually assigned at the beginning of the fourth grade. In order to achieve these goals, at least three types of reading activities are essential during the reading period.

#### THREE TYPLS OF READING ACTIVITIES

The first has for its purpose the development of greater power in recognition, comprehension and oral reading To this end many teachers devote one period each day to carefully planned lessons which emphasize good habits of oral reading, and increased rate of silent reading. By the end of the third grade all pupils should read more rapidly silently than orally. I sperience teaches that growth in various phases of reading is secured most rapidly when teachers give specific attention to the needs of pupils in one phase of reading daily rather than to dissipate energy over too many items. The old idage of 'one thing at a time and that done well 'applies to guidance in reading during the second and third grades. The second type of reading activity provided has for its purpose the permanent es tablishment of good habits of oral reading and silent read To this end special periods should be provided al most daily in which pupils may read somewhat simpler material than that used in the development period. This plan promotes the rapid development of habits of fluent recognition, of grasping meanings quickly while in the act of reading, and of reading to others clearly and in natural thought units

The third type of reading instruction has been called corrective and remedial teaching. By corrective teaching is me intitle help that is provided to enable pupils to over come specific difficulties and weaknesses in reading before they become serious. Much attention should be devoted daily to the correction of difficulties as soon as they are exhibited by pupils. By remedial teaching is meant the specialized help provided for pupils who encounter unusual difficulty in learning to read or who have acquired bad habits which cannot be overcome readily. It is essential that all teachers in the primary grades reserve special periods daily or at frequent intervals for individual work with poor readers. The earlier that reading deficiencies are attacked, the more readily they can be overcome.

#### INCIDINTAL READING

As the work of the reading period progresses provision should be made for much incidental reading in connection with most school activities and for wide reading and study in all content subjects or fields. This is a radical departure from the work of the second and third grades a decade ago. I sperience has shown clearly however, they also o

wide reading for intom itton in virious sile to the said activities is soon as pupils have required by the engage in continuous meaningful reading train has a fine thought the methods employed in guiding such reading train to direct attention chiefly to the content of matrix read. It is also essential that a period be reserved daily to the in pupils may engage in free reading under the guidance treatful teacher. At this time special effort to add by made to broaden and deepen reading interests and to establish permanently, the habit of daily indepartical

While the school is developing broad reading in cress and efficient habits in the second and third grades, the home may cooperate to advantage in the folloging way extend the range of interesting stories and information 1 books provided in the home develop in attractive read ing nool or corner including a small table and co no t able chair set uside a time in the day or evening whe at will be the usual thing to engage in tree reading there vith children the things they are reading about commend interesting reports, and help them secure more matern I along related lines read to and with them frequently always refraining from tilling such an active part that they prefer to listen rather than to read, and study any difficulties that seem to be serious handicups to the child's progress and report them to the teacher. In the many other ways parents may contribute much to rap d progress in desirable reading interests and habit

The fourth fifth and sixth grides have is their chief hims the development of greater power efficiency and excellence in reading the broadening of reading interests and the elevation of reading tastes. The amount of time and instruction necessary in attaining these aims varies with conditions. In some schools, the sixth ande stand ard is reached by many pupils in the fourth or fifth grades Very little guidance in reading is required by such pupil other than that given in connection with the contensubjects. Many other pupils do not atten sixtligrade norms until the end of that grade. For them sy tem itic training in reading is essential in order to develop the necessary power in interpretation efficiency in reconition and excellence in oral reading. Those p. p.1 ful to attain the sixth grade norm during these gride should receive systematic training in reading during sibsequent andes. It is obvious therefore that the naver function of the reading period during the tourth it it has a sixth grades is to study the progrem and needs explain a reading and to provide the types of training near areas. develop satisfactors achievemen in each important phase of reading. Special effort should be made a previde reading activities that are highly charged and a terest and in which the pupils of a contracting motives. It is only under such a near a site of a progression be mide in developing policine according excellence in reading

#### TOUR SUPPLIEVENT ARY STEPS

The work of the red numbers and it is not on many school by to request on the distriction of enemy to in the converted respect to the control of the indicate provided respectively.

jects and activities The need for such reading is due to the fact that many of the experiences which pupils should acquire cannot be gained directly. A majority of them must be secured indirectly as boys and girls enter into the experiences of others by reading spirited and well-written accounts of them. To this end, well equipped classrooms supplement the use of textbooks by many additional books and sources of information relating to the topics or problems studied. These include attractive library books which extend experience in related fields and which pupils read during recreational reading periods.

The second step is a natural outgrowth of the first. As soon as pupils begin to read widely in different fields the types and purposes of reading required increase rapidly. In order to provide for the new needs thus developed, teachers give specific guidance in the reading activities required in the various fields, such as the social studies, science, and arithmetic. This includes careful assignments, developmental teaching of reading habits peculiar to special fields, many supervised study periods in which specific guidance is given in applying and refining reading habits, and much individual help for pupils who encounter difficulty in their reading and study activities

The third step is illustrated in the better schools of the country which organize the materials read around interesting units or problems. This type of teaching is intended to induce pupils to carry on while reading, trains of thought which aid in interpretation and in the organization of experience. Before schools can attain these results, it is often necessary to reorganize the course of study and to provide new, interesting, and challenging reading materials.

The fourth step is to supplement group assignments with individual problems which pupils study independently. The chief aim of this step is to develop initiative and efficiency in independent reading activities. It is obvious that we are now concerned with instruction of a high order. Its advantages are numerous it provides pupils with challenging opportunities, it promotes interest in discovery and in the thorough study of problems, it promotes initiative and independence in the reading activities involved, and it insures the development of reading attitudes and habits that will function all through life.

In addition to an enriched program of activities during the reading period and the types of reading opportunities in the content subjects that have been here described, at least two steps are essential in an adequate reading program in the middle grades. The first is the cultivation of hearty enjoyment of good types of literature and the elevation of reading tastes. The inferior quality of much of the reading of secondary school pupils is evidence of the need of vigorous constructive steps. The second is the provision of a period each day during which pupils may satisfy reading interests in a stimulating attractive environment, preferably a special reading room or school library.

As the reading interests of pupils broaden and deepen during the fourth, fifth, and sixth grades, parents should continue their cooperation New books at frequent intervals relating to the reading interests of children and a good magazine or two are essential Daily discussions with children concerning their interests and problems prove very helpful Some parents go often with children to the library to help find material that will satisfy an interest or solve a problem The presence of a source-book in the home, such as The New Wonder World may provide invaluable aid in finding answers to questions raised in school, in satisfying interest and curiosity, and in se curing a solution for practical problems that arise in the out of-school life of the child Parents should be generous both in the comradeship which they cultivate with the intellectual life of their children and in the provision they make of reading materials for extending and enriching their experiences

The work of the secondary school with respect to reading is largely an extension and refinement of the interests and habits cultivated in the grades. As indicated earlier, pupils who have not acquired sixth-grade norms in reading achievement by the end of that grade should receive systematic training in subsequent grades until their deficiencies have been overcome. As a rule, the development of increased power, efficiency, and excellence in reading and study habits must come through guidance in the content subjects.

Of special importance is the obligation of the secondary school to extend and deepen reading interests and to elevate reading tastes

## CHILDREN AND PICTURES

#### BY JEAN BITYNLR

Associate Professor of Education, Teachers College, Columbia Ly cers to

CHILDREN of to day are surrounded by pictures. They can not escape them if they would. I rom babyhood on through life, representation produced by engraving, drawing, painting, and photography has now become a constant factor in the individual's environment. One finds pictures on the child's nursery walls on his furniture, on his dishes and silver. His clothes toys, and books are gay with pictures. His parents' rooms are strewn with magazines, newspapers, and books all rich with a goodly supply of pictures of this, that and every thing. His food comes from the store in boxes with pictures within and without. Signboards, placards, and posters which confront him as he goes on the street represent in color, line, and space the world that is and is not.

It may be that this abundance of representation needs no consideration on the part of those who care about the welfare of children. It may be that the child rejects much that is furnished and uses only that which he needs to further his understanding of a world new and amazing to him. But it is more reasonable to assume that the great quantity of pictures available to children places a responsibility on some one to assist the child in exercising discretion and choosing the better thing from those not so fine. There seems to be plenty of cyldence at hand to indicate that this material will grow in bulk is means and ease of reproduction are improved. The future production of pictures of all varieties will depend to a large extent upon the demands made for them by this growing generation. If children are to secure the most from this excellent form of communication they must grow in the realization of the possible values in this material

Tradition has long placed a stamp of approval on pictures for children. Pictures have been considered of worth because they interested children in books and other materials thought desirable for them to read. Pictures no matter how poorly executed, found their way into children's books, not for the purpose of illustrating a point or making the text clear, for they often had little or no connection with the text, but for the purpose of encouraging the child to like the book and of enticing him to return to it.

It has long been the custom to console the small child along the way with pictures when encouragement for an unpleasant task was needed. It is no idle whim that is responsible for the gay decoration at the bottom of the cureal dish

These traditional values of pictures for children can be generally accepted under our new child paychology. Pictures can do at least one thing better than words. In general pictures show what a thing is like when it is at rest. They do not show what things do nor what they were nor what they will become. Now this very opportunities.

tunity of examining through picture what a thing is like when it is at rest is the opportunity sought by children. I fee with its ripid motion and change is hard to under stand, and difficult for the young child to study. It is very satisfying when out of the whole buy macconfision it is possible to step aside and examine for is low and soften as one wishes one isplict of the busy change world. Children are eater to under thind the people and things about them in their constantly changing relation ships, and this very eagerness is to some degree satisfied in the opportunities offered by pictures.

This examination through pictures of an ever enfarance world, carried on when one desires to do so and for s long as one wishes has another distinct advantage for the young child. It can be carried on independently at a very early age. The complicated techniques of reading are not acquired as early in the child's life as his demands for information about his world exhibit themselves While it is quite true that the child can probably use assistance in the interpretation of composition in color line, and space the fact remains that without as a cance he can secure many more ideas of value to him than he could from the perusal of composition in word opportunity afforded in pictures of going to an expression of an idea at will, without assistance and to examine it is long as one wishes and for the purpo clone via her is an opportunity similar to that sought by the research student at a different age

Not only does the child find pictures intered ting and such that he can interpret much of them independently but he finds this interpretation case and profitable Relative size and proportion color and shape can be seen and understood. The relationship of one decail to another can be realized.

No matter how limited the child's environment is the can through pictures escape these limitations and become acquainted with things and their many function, with places and the relation of the eto people and thing and with people and their affair. Color space quality atmosphere movement are all registered and available to children. I ving on the floor of his own home the children. I ving on the floor of his own home the children is tudies with case his own dog the farm the most to unight, the available to field the streets of Argana de deep sea and the heavens. The city how everying a hir growth is with the home life and background of the conservation by learns of the vasco of city his boy. The country boy learns of the vasco of city his will and varied experience through this simple deep will and as needed.

The case with which poures on the some of the abundance of facts available in them offer any of tunity for securing line leave with notice of the sounges children. Will post a continue the place of nords because and offer more.

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supplement words and arouse interest that can be carried on by words only Reading becomes a necessary accompaniment to this source of information

Tradition has sanctioned another use of pictures. An earmark of the cultured person has been his enjoyment and appreciation of the beautiful. Because this can be found so readily and richly and abundantly in pictures it has been a commonly accepted idea that children should be early exposed to them. An examination of children's interests warrants the continuation of this practice. Children seem to care very much for charming printed color and decoration which can be easily secured and thoroughly enjoyed.

This interest may be partly accounted for in the child's joy in his own use of color and decoration. His own attempts at expressing himself which he may begin early and carry on, at least through his childhood days, put him at one with the greatest of masters. An interest in the technique of the artist is not foreign to childhood In fact, it is such a common interest that it is amazing so introduce even young children to the delights found in the poet's choice of rhythm and words The artist's choice of arrangement and line offers as much in return for consideration. In even the poorest reproductions of the work executed by those most skilled in handling brush, pencil and pen, opportunities for enjoyment of space, color, and line are offered. The modern child is rarely limited to poor reproductions Good color, beautiful composition and pleasing line are becoming increas ingly common even in the textbook. With a little effort, rarely beautiful reproductions of the greatest artists can be secured

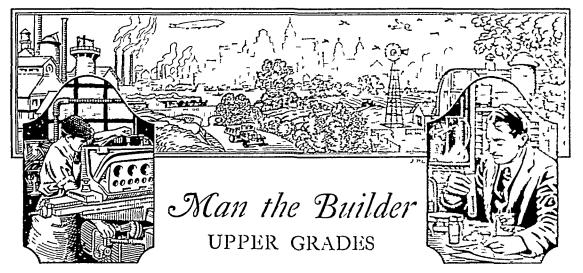
The picture is expressed in a universal language Some of the most beautiful and moving ideals of all times have been set forth by the brush and pen of the artist. This material is too valuable for the child of to day to miss. The words of the Japanese may not be understood by the child but the simplicity of composition and rare beauty of line common to Japanese art can be interpreted and enjoyed. Possible points of contact with other peoples and times must be utilized by the child of to-day, and in the expressions of the artist are found available means for making these,

It is quite evident then that tradition and the contem porary demands of children have placed high values on this art expression found so readily available Lett to himself, the child would be able to secure to some extant many of these values, but the educational agencies can assist him to secure them more abundantly and more economically A realization that pictures deal with something more than facts would give emphasis to the idea that pictures are interpretations of the artist's or photographer's idea, and to secure their real significance one must seek for more than the subject of the picture Information secured from a picture must be interpreted relative to the composer's purpose The more effort the interpretation of a picture requires, the greater the contribution will be to the interpreter. Time for interpretation and enjoyment and contact with those possessing a nch acquaintance with pictures can well be planned and applied

While pictures supplement actual experience they are not a substitute for real contacts with people place and things No doubt the child who has the greatest opportunity for seeing, doing, feeling, hearing, and smell ing will find the greatest use for pictures and get the most from them Firsthand contacts correct misconceptions, and, because they call for greater adjustments, they give more in return But pictures offer much that most children can never experience. None of them visited the South Pole in 1930 but all can see how it appeared to Byrd and his men at that time Few children have seen deep-sea life but all can see those aspects of it that interested Beebe Few children will be artists and revel in the portrayal of indoor and outdoor light as Velasquez did, but all can get some notion of how he felt about it

To assist children to understand and to utilize the contributions of pictures is merely assisting them to understand and make the most of items in the environment which they can not escape. Moreover, within the study of pictures lies a vast, unlimited field of beauty waiting for children eager to explore and enjoy it. With proper guidance who can say to what it will lead. At least it ments more attention than has been given to it in the past and it will certainly lead to something finer than the commonly heard expression, "I don't know anything about art, but I do know what I like in pictures"





Theme —How the building of man helps us to interpret the state and culture of his civilization

#### UNIT I

## Buildings

- I Homes and buildings of earliest man
  - (A) Influence of environment
  - (B) Influence of fear
- II Homes and buildings of early civilizations
  - (A) Brick buildings of the Babylonians
  - (B) Religious influence upon the buildings of the Hebrey's Egyptians Greeks and Romans
    - I Tombs, pyramids obelisks temples
  - (C) Use of decoration to express feeling for beauty
    - 1 Columns, stone carvings friezes pediments
  - (D) Use of domes arches and axis for greater height, space and light
  - (L) Some famous buildings of the early civilizations
    - I The Parthenon and the Erechtheum of Greece
    - 2 The Sphinx and the pyramids of Egypt
    - 3 The Colosseum and the Pantheon of Rome
    - 4 Roman baths and amphitheaters
  - (I) Influence of the building of this age upon present civilization
- III Buildings of the early Christian era
  - (A) Byzintine use of domes and mosaics
  - (B) Use of transcpt and round arched windows in churches of the Romanesque period religious influence
    - rengious influence
  - (C) Influence of religious enthusiasm as shown in Gothic architecture a Use of intersecting vault to support stone roofs and give light
    - 2 Beginnings of the use of straned glass
    - 3 Use of flying buttresses to keep pressure from vills
    - 4 Use of ribbed vaulting
    - 5 Gothic castles to in halls city houses etc.

- IV Return to classic architecture in Italy during the Renaissance
  - (A) Spread of this type to all countries of Europe
  - (B) St Paul's Cathedral London
    - I Use of dome, two spires, a colonnade, pediment, gabled windows
- V Use of courty ards, low domes, and minarets on mosques of the Islam peoples
  - (A) The Alhambra
    - I Use of geometric designs as decoration

#### VI Indian architecture

- (A) How buildings of different tribes reflect their mode of life
  - 1 Pueblos of New Mexico
  - 2 Tepees of the Plains Indians
  - 3 Igloos of the Eskimo

## VII Modern building in America

- (A) Influence of Renaissance and Georgian architecture
- (B) Age of simplicity and beauty
  - 1 Work of Sullivan
  - 2 Use of steel framework
    - (a) Growth in height
  - 3 Disappearance of ornate classic orders
  - 4 Fitting of design to use of building
  - 5 The buildings in the city of the future
- (C) Some modern buildings in America
  - 1 Empire State, New York
  - 2 The Woolworth Building, New York
  - 3 The Public Library, Boston
  - 4 The Nebraska State Capitol
  - 5 Mountain Lake Singing Tower, Florida

#### PROBLEMS FOR STUDY

- I Study carefully the pictures of buildings found in Volumes One, Four, Five and Seven of The New Wonder World Can you see how each type of building helps to tell the story of the civilization it represents?
- 2 What were the great differences between Greek and Roman architecture? Illustrate with examples
- 3 Why was it a big step when the Babylonians began to make bricks?
- 4 Illustrate how religion has always played a great part in the type of building man has done
- 5 Show how the use of such things as the arch and the axis showed not only an esthetic, but a practical purpose
- 6 Why was the use of an intersecting vault and of flying buttresses a big step in cathedral building?
- 7 Can you explain why so many of the great cathedrals were built in the Middle Ages?
- 8 How is stained glass made and put together? Find out something about the making of stained glass in your own country at the present time
- 9 Contrast present American architecture with early American Which do you prefer? Why?
- 10 What are the advantages in constructing such buildings as the Chrysler and the Empire State in New York?

#### SUGGESTED ACTIVITIES

- Make a series of pictures or a frieze showing the evolution of architecture from the early man's cave to a modern skyscraper. Be sure to study the pictures in IIII New World World carefully first.
- 2 Collect pictures of all types of buildings, classify and mount in a book for your class library
- 3 Make a series of pictures showing as many different types of Indian houses as you can find Give a talk to your class on Indian homes
- Prepare a special report to give your class on one of the following
  - (a) The Hanging Gardens of Babylon
  - (b) The Ta<sub>1</sub> Mahal of India
  - (c) Riverside Church, New York, a copy of Chartres Cathedral Trance
  - (d) The Pyramids and the Sphinx, Egypt
  - (e) Mountain Lake Singing Tower, Florida
- 5 Collect pictures of any buildings you can find that show the influence of an earlier period Decide whether it is Gothic, Romanesque Grecian, etc. Put your pictures on the bulletin board or use in a book, Man the Builder
- 6 Make a chart showing different orders of architecture and one showing uses of different types of arches
- 7 Model one of the following

10

- (a) An Egyptian pyramid or obelisk
- (d) A pueblo

(b) A Greek column

(e) In igloo

(c) A Roman house

- (f) Something of your ovin choosing
- 8 Learn about some of the great architects and builders and tell your class about them
- 9 Divide your class into groups Let each group build one building representing a different type of architecture. Use simple buildings
  - (a) Have an exhibition of materials on Man the Builder
  - (b) Have a class discussion on the following questions

How has man's life influenced his building through the ages?

How has the building of one age influenced the building of ages to come?

#### Page References-THI NIV WONDER WOELD

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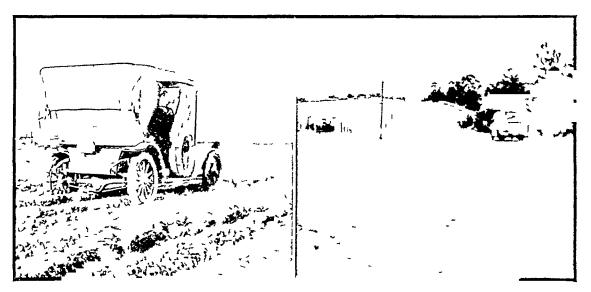
The Chil Palace at Mesa Verde (color)
Temples in Yucatan
The Serpent Mount in Ohio
A Town of Dwellers Underground
Chil Dwellings in New Mexico
A Kafiir Hut
A New Zealand Hut
A New Zealand Village
A Laplander's Home

## Volume I—Continued

Volume 1—Communa	
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Volume IV	
The Gint Crane (color) From Tent to Skyscriper 4 Skin Tent Used by Hungirian Huntsmen 4 Navajo Hut 4 Mevican House of the Present Day The Square, the Triangle, and the Arch (chart) Columns in an Egyptian Temple The Story of the Column The Partheon The Partheon The Lerichtheum The Pantheon The Colosseum Santa Sophia St Mark's at Venice, with the Campanile, or Bell Tower The Prizza della Duomo, Pisa, Italy The Leaning Tower of Pisa Cologne Cathedral Union Station at Washington I incoln Cathedral Notre Dame Cathedral, Showing the Flying Buttresses The Fagade of Notre Dame, the Famous Cathedral of Paris The Ribbed Vault The Corridor, or Cloisters of Gloucester Cathedral, England The Cathedral at Rouen, France The Pitti Palace, Florence St Mark's and Doge's Palace, Venice St Peter's Church, Rome A Courtvard in Granada Cairo, Egypt Nebraska State Capitol The Boston Public Library The Woolworth Building, New York Mountain Lake Singing Tower Empire State Building, New York	frontispiece 216 218 219 220 221 224 225 226 227 228 229 230 232 233 234 235 237 238 240, 241 242 243 244 245 246 248 249 250 251 252 253 254 255 256
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#### UNIT II

## Means of Transportation

- I How man has built and developed roads
  - (A) Value of good roads to mankind
  - (B) Ancient roads
    - I Babylonian roads
    - 2 The Appian Wiv
    - 3 Roman roads in Lagland
  - (C) Roads in England
    - I The coach road
  - (D) American roads
    - I Extent of American road building
    - 2 Care and repair of roads
    - 3 New England roads
      - (1) Town roads
    - 4 Private roads
      - (1) Difficulties of use
    - 5 National roads
      - (1) First national road
      - (b) Effect of rulroids

- (b) Toll roads
- (b) Iffect of rulroads
- (c) Lifect of automobile

(E) Modern road construction

## II Building of railroads

- (A) Early experiments
- (B) Stephenson s first railway
- (C) First American railway
- (D) Western Railroads
  - 1 Union Pacific
  - 2 Northern Pacific
  - 3 Southern Pacific
  - 4 Santa Fe
  - 5 Great Northern
  - 6 Canadian Pacific
- (E) Eastern Railroads
  - 1 New York Central
  - 2 Erie
  - 3 Pennsylvania

- 4 Chesapeake and Ohio
- 5 Baltimore and Ohio
- 6 Illinois Central
- (F) Railroads in other countries
- (G) Modern equipment and safety devices

### III Use of tunnels on railways

- (A) Ancient tunnels
- (B) American tunnels
  - I Hoosac Tunnel
  - 2 Moffat Tunnel
  - 3 Cascade Tunnel
- (C) Alpine tunnels
  - 1 Mt Cenis Tunnel
  - 2 St Gothard
  - 3 Simplon Tunnel
- (D) Submarine Tunnels
  - I Construction of
  - 2 Severn Tunnel
  - 3 Hudson River Tunnel

#### IV Other tunnels

- (A) The Holland Tunnel, New York
- (B) Submars
  - I How different from tunnels
  - 2 Use in modern cities

## V Bridges and bridge building

- (A) Bridges of prehistoric man
- (B) Bridges of the ancient world
  - I Babylonian bridges
  - 2 Roman bridges
    - (a) Influence upon bridge building in Europe
- (C) Early European bridges
  - I London Bridge, England
  - 2 Schaffhausen Bridge, Germany

- (D) Early American bridges
- (E) Modern bridge construction
  - 1 Importance of the engineer
  - 2 Principles of bridge construction
  - 3 The substructure
    - (a) The caisson
  - 4 The superstructure
    - (a) Types of superstructure
    - (b) Materials used
  - 5 Kinds of bridges
    - (a) Girder bridges
    - (b) The cantilever bridge
    - (c) Suspension bridges
    - (d) Use of arches or viaducts
      - 1 Value and importance
      - 11 Use in ancient times
      - iii Use as carriers of water
    - (e) The trestle
    - (f) The pontoon
    - (g) Movable bridges
  - 6 The story of the building of a bridge
  - 7 Problems in erecting bridges
    - (a) Setting up the steel
    - (b) Replacing bridge in record time
    - (c) Wind pressure
  - 8 Future developments in bridge building
    - (a) Change in materials used
    - (b) Increasing use of submarine tunnels

## VI Building of canals

- (A) Beginnings in ancient Egypt
  - I Canal connecting the Red Sea and the Mediterranean, 1380 B C
- (B) The Grand Canal in China
- (C) Early European canals
  - r System to connect the Rhine, the Mans, and the Danube
  - 2 The Languedoc Canal connecting Spain and Portugal
  - 3 The Trent and Mersey Canal
- (D) Purpose of canals to-day
  - 1 Ship canals
    - (a) Suez
    - (b) Panama
  - 2 Barge canals
    - (a) Erie
  - 3 Canals of Holland for draining
- (E) Use of locks
  - I Invention by Leonardo da Vinci
  - 2 How they work
  - 3 Panama Canal locks

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r	uirements of canal construction The "feeder" Arrangements for storms Method of drawing boats through		
(G) Grea	t canals of the world		
Ι	The Suez (a) History of (b) Difficulties encountered		Enlarging the canal Importance of
	Kiel Canal		
3	Manchester Ship Canal (a) Value of (b) The locks	(c)	The swing bridge
4	Erie Canal  (a) Importance in developing comm  (b) Reconstruction	nercial	importance of New York
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6	Chicago Drainage Canal  (a) Purpose  (b) Importance in other fields		
7	Cape Cod Canal		
8	Welland Canal (a) History of (b) Rebuilding of		How operated Importance of
9	Panama Canal  (a) History of  (b) Work of General Gorgas  (c) Work of Colonel Goethals  (d) Decision to make a lock canal in  (e) General features	rather	than a sea level one

1 Location 111 Culebra Cut

11 Gatun Lake

(f) Difficulties of construction

1 Malaria 111 Dredging

11 Engineering problems

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#### VII Story of ships

- (A) Discovery by early man of how to float on water
- (B) Ancient boats and ships
  - I The Egyptian paddle boat
  - 2 Phanician boats
  - 3 Greek and Roman boats
    - (a) The bireme and the trireme
    - (b) Difference in merchantmen and men-of-war
    - (c) How Roman vessels were built
    - (d) Dangers and labor of sailing
  - 4 The ships of the Norsemen
    - (a) Remains of boats of the dead
    - (b) How built
      - 1 "Gokstad Ship"
    - (c) First boats to sail on an angle toward the wind
    - (d) Lack of a rudder, bowsprit, and deep-draft hull
- (C) Early European ships
  - r One-masted
  - 2 Three-masted
    - (a) "Santa Maria"
  - 3 Caravels
  - 4 Galleons
    - (a) Superiority
- (D) Yankee chippers
  - I Grace and beauty
  - 2 Speed
  - 3 The "Lightning"
  - 4 The "Red Jacket"
  - 5 Race between the "Ariel," the "Taeping," and the "Serica"
  - 6 Voyages of the "Thermopyle," and the 'Sir Launcelot
- (E) Sailing vessels of to-day
  - I Fishing fleets of the North Atlantic coast
    - (a) Use of Diesel engine instead of topmasts
    - (b) Comparison of full rig and schooner rig
    - (c) How the ship is steered
    - (d) Speed
  - 2 Square riggers
    - (1) Scarcity
    - (b) Use as traders between the United States and Mediterranean ports
    - (c) Use in Argentine trade

- 5 Ornamented ships' hulls
- 6 Old English min-of-war
  - (a) Improvements over former boats
  - (b) The broadside

- (F) Modern shipbuilding
  - r Changes due to use of steel
  - 2 The first steamboats
    - (a) Work of John Fitch and James Rumsey
    - (b) The "Clermont"
    - (c) The "Rob Roy"
      - 1 For English Channel use
    - (d) The "Savannah"

      - 1 First to cross the ocean in Time schedule for ocean trip
      - n How made
    - (e) The "Great Western"
      - 1 The establishment of steam on the sea
      - n Founding of the Cunard Line
  - 3 The use of the screw propeller
    - (a) Invented by John Ericsson
    - (b) Its value
    - (c) The "Robert F Stockton"
      - 1 First iron screw steamer
    - (d) The "Princeton"
    - (e) The "Monitor"
      - 1 Forerunner of all modern war vessels
    - (f) Tug-of-war between the screw propeller "Rattler," and the paddle-wheel steamer "Alecto"
      - 1 Proof of superiority of the screw propeller
  - 4 Recent improvements in shipbuilding
    - (a) Introduction of the turbine
    - (b) Use of oil as fuel
    - (c) Attention to size, speed, and perfection of detail
  - (G) Mammoth vessels of modern times
    - I The "Great Eastern"
      - (a) Lack of confidence in her
      - (b) Safety and strength of her structure
      - (c) Services in laying the first transatlantic cable
    - 2 The "City of Paris" and the "City of New York"
      - (a) First to embody size, speed, twin screws, division of passengers by classes, huge superstructure, many decks
    - 3 The "Titanic" disaster
    - 4 The sinking of the "Lusitania"
    - 5 Present-day transatlantic liners
      - (a) Their speed and luxurious equipment
      - (b) The gyroscopic stabilizer
      - (c) Fuel and power requirements
  - (H) Naval vessels
    - I Battleships
      - (a) Limitations of earlier battleships
      - (b) Adoption of iron armor
      - (c) Adoption of the turret
      - (d) Size, speed and fire power of a modern battleship
    - 2 Aircraft carriers
    - 3 Cruisers

....

- (H) Naval vessels-Continued
  - 4 Destroyers
  - 5 Patrol torpedo boats
  - 6 Convoy escort vessels
    - (a) Destroyer escorts
    - (b) Patrol craft escorts
    - (c) Converted yachts and gunboats
  - 7 Auxiliaries
  - 8 Minecraft
  - o Submarines
    - (a) Early attempts at underwater navigation
    - (b) Work of David Bushnell and Robert Γulton
    - (c) Use in Civil War
    - (d) Made practical by invention of Whitehead torpedo, internal-combustion engine and storage battery
    - (e) Work of John P Holland and Simon Lake
    - (f) Use in World Wars I and II
    - (g) The submarine of today
      - 1 Size, speed and armament
      - 11 Living conditions of crew
      - in "Momsen Lung" escape equipment

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(See also the text accompanying many of the pictures, for further material out of which to build a historical account of ships )

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## PROBLEMS FOR STUDY

- I Show how, as man has learned to use and understand things from his environment, means of transportation have improved
- Demonstrate the truth of the following statement from THE NEW WONDER WORLD, Volume IV, Page 259
  - "Of all inventions, the alphabet and the printing press alone excepted, those inventions which bridge distance have done most for civilization"
- 3 What does England owe to the Romans as far as roads are concerned?
- 4 Why were many of the early roads built by turnpike companies, toll roads? Do you know of any toll roads of the present day?
- 5 Contrast the building of an early American road with the building of one at the present time
- 6 What effect did the coming of the railroad have upon road building?
- 7 What impetus was given to road building in the United States about 1900? Who took the lead?

- 8 Show that primitive man knew the principles of bridge building
- 9 Can you explain how the substructure of a large bridge is set up?
- 10 What is the difference between a bridge and a liaduct?
- II Why has the use of steel revolutionized bridge building?
- What problems faced the men who experimented with and built the first railroads? Slow how son e of those problems are met to-day
- 13 What recent developments have there been in railroad construction aid improvements?
- 14 Why did the Romans not discover and use railroads?
- 15 What inventions were great aids to the building of tunnels? What do we near when we say Mar is conquering the earth?"
- 16 How do canal locks work?
- 17 Contrast the purposes of canals built by early civilizations and those of the present
- 18 Why were many engineers opposed to a sea level canal at Panama?
- 19 Make a list of inventors who have helped in the improvement of ships
- 20 What were the advantages of early European boats over those of the Greeks and Romans? Of the modern vessels over early European boats?
- 21 Show that Man the Builder has been almost wholly dependent upon Man the Linguiser in de cloping means of transportation

#### SUGGESTED ACTIVITIES

- I Find out how the roads in your community have developed. Were there inv. Indian roads or toll roads?
- 2 How are the roads in your city, county, and state kept up? Make a chart or graph showing items of upkeep for roads
- 3 On a highway map of the United States mark the route vou would select to make the following trips

From New York to San Francisco

From Los Angeles to Seattle

From Boston to Minneapolis

From Dallas to Chicago

From Denver to Atlanta

- 4 If there are roads being constructed or repaired near your community watch to find out how the road bed is prepared, what materials are used, special machinery used ctc. Report to your class what you have found out
- 5 On a large freehand map of the United States show the development of roads | Begin vith Indian and pioneer trails Colored pictures will add to its attractiveness
- 6 On an outline map of Eurasia indicate where ancient and early European roads vere located
- 7 Read some stories of coach and tavern days both in Europe and America
- 8 Collect pictures that will show the development of both railroads and ruleo d trans from the "Tom Thumb" to our present giant engines
- 9 Prepare to tell your classmates one of the following stories from The New Words World Volume IV

Crossing the Continent

How a Yankee Became a Ruirond Magnate

Opening the Northwest — The Canadian Pacific

George Pullman and the Sleeping Car

Cairo to the Cape The Loftiest Ruly av in the World The Irans-Siberian Rule av

10 Find the story of William Cody, "Buffalo Bill and tell it to your classmates

- On a large outline map of the world show important railroad undertakings Be sure to include the Trans-Andean Trans-Siberian, the Cape-to-Cairo, and the Northern Pacific
- Read the story of the construction of the Holland, the Hoosac, or the Simplon Tunnels Tell your classmates about it, so that they understand how a tunnel is started, what machinery is necessary, what engineering problems and difficulties are met, how they are solved, etc
- 13 If a tunnel or subway is being constructed near your home, observe carefully how it is being done, what materials are being used, etc. Report your findings to your class
- On a large outline map of the world show great tunnels in the world's history Be sure to include those of the Ancients
- 15 Study the pictures of different types of bridges in The New Wonder World, Volume IV and collect pictures or diagrams of all types of bridges 
  Use for a special report on kinds of bridges and how they work
- 16 Using a diagram on the blackboard, show how a movable bridge works
- 17 On a large outline map of the world show great bridges
- 18 Using pictures or a diagram, explain to your class the difference between a bridge and a viaduct
- 19 If possible take a trip on a canal Observe carefully the kind of boat used, how drawn through the water, etc
- 20 Make a cartoon illustrative of the idea that the crude canals of the ancients have grown to the huge canals like the Suez and the Panama
- Make a graph comparing the kinds of traffic, amount of traffic, and tolls for a certain period of the Suez and the Panama Canals
- Collect pictures of all types of boats and ships that have been built by man since early times Arrange on the bulletin board and use for class discussion
- 23 Find all of the stories and poems about ships that you can Read them for pleasure
- Collect pictures of famous boats like the "Clermont," the "Victory," the "Great Western,'
  "Old Ironsides and the "Merrimac" Write short stories of their histories and make a booklet on "Some Famous Ships
- 25 If possible, visit a ship and to see a ship being built or a dock to see a modern freighter or passenger vessel Be sure to observe how Man the Engineer and Man the Builder have worked together to produce our modern ships

#### SUGGESTIONS FOR REVIEW

- I Write one of the following
  - (a) A story of an imaginary trip in a coach on a turnpike road
  - (b) A story of an imaginary trip in an automobile over one of the roads in the early 1900's
  - (c) An account a passenger on the "De Witt Clinton" might have written
  - (d) An account of a recent trip you have taken either by rail or automobile
  - (e) The story of the building of the Union Pacific Railroad as told by a member of the "gang" of workmen who built it
  - (f) An account of a passenger's first ride in a subway
  - (g) The report an engineer might turn in of the construction of a bridge
  - (h) A series of letters from a worker in the Panama Canal Zone telling of the progress being made on the canal
  - (1) An account of the first trip of the "Clermont' by an eyewitness
  - (1) The story of an imaginary trip on an ocean liner or a submarine

(Be sure to keep all of your facts true and accurate—Bring out the ideas that will help your reader see the stage of development of the particular thing you are writing about—Humor and illustration add to the interest of your writing—Read and discuss in class the writings of the different members of your group)

- 2 Do one of the following
  - (a) Prepare a special report on any of these topics

The Appian Way

Old Toll Roads

Our National Highways

Work of Gothals at Panama

Great Railroad Men

How the Engineer and the Builder Have Worked Together

What Present Civilization Owes the Laborer

Famous Ships in History

The Building of the Suez Canal

Romance of Transportation

- (b) Make a large freehand map of your state or the section of the country in which you live Call it "Our Transportation Facilities" Show the main roads railroads canals, etc. A pictorial map will be very effective
- (c) Make a map or two maps showing the contrast of the mileage of canals in Γurope and the United States
- (d) Make a series of pictures or a frieze for one of the following

How Transportation Grew

Types of Bridges

How Railroads Grew

Boats of Man

From Trul to Rulroad Development of Canals

- (e) Make models of different types of boats, bridges, etc
- (f) Make a book for your school library showing the pictorial history of transportation
- 3 Have an exhibition of all the materials you have so far collected on Man the Builder Invite another grade to see them, answer their questions and explain things they do not understand

(The above unit may be taken out of "Man the Builder" and the the addition of the de elopment of air transportation and waterways be used as a unit on "Transportation")

#### UNIT III

#### Control of Water

- I Irrigation systems
  - (A) Purpose
  - (B) Primitive irrigation systems
    - I The Egyptian method
      - (a) Importance in development of agriculture in Lgypt
    - 2 Irrigation in other ancient countries
      - (a) Mesopotamia

(c) Sprin

(b) India

(d) Rome

- (C) Modern irrigation projects
  - 1 Requirements
    - (a) Reservoirs

(c) Canals

- (b) Dams
- 2 Investigations and preparation before project is begun
- 3 Modern irrigation in Egypt
  - (a) Construction of the Assuan Dam
    - 1 How made
    - 11 How it works
    - iii Effect of its construction

240	mat min bombin	•
	(C) Modern irrigation projects—Continued	
	4 Modern irrigation in the United States	
	(a) Early irrigation projects	
	(b) The Reclamation Law	
	1 Formation of the United States I	Reclamation Service
	(c) Selecting a place for an irrigation proj	ject
	(d) Responsibility for cost of building	
	(e) The Salt River Valley Project, Arizor	na
	1 The Roosevelt Dam	
	11 Bartlett Dam	
	(f) Boulder Dam	1 1
	1 Use in Irrigation, power and floo	
	(g) Columbia Basin Reclamation Project	
	1 Grand Coulee Dam	and Canala
	11 Future Construction of Reservoi	
	(h) Importance of government enterprise 5 The future of irrigation	
TT	5	
TT	Water-supply systems	
	(A) Primitive and ancient methods of securing water	and Charles
	<ul><li>Wells of the Hebrews, Egyptians, Chinese, a</li><li>Aqueducts of the Romans</li></ul>	and Greeks
	2 Aqueducts of the Romans (a) Materials used	(d) Spread into other parts of Europe
	(b) Understanding of hydraulic principles	
	(c) Length of system	Boiling and filtering
	(B) Modern water-supply systems	3
	Influence of the invention of the steam engin	ne
	2 Parts of a system	
	(a) Source of supply	(c) An aqueduct
	(b) Works for collection and purification	(d) Distributing system
	3 Artesian wells as a source of supply	
	4 Dams as a source of supply	
	5 Construction of a reservoir and aqueduct	
	(a) Engineering feats	
	6 Water systems of American cities	(b) Chicago
	(a) Boston	1 Drainage canal
	(c) New York	1 Diamago outus
	1 The Croton System	(d) Los Angeles
	11 The Catskill Aqueduct	1 Colorado River
	111 The Delaware Aqueduct	Aqueduct
Ш	Water Power	·
	(A) Modern power plants	
	The power house	4 Channel
	2 The dam	5 Principles of construction
	3 Water wheel	-
	(B) Great water-power developments	
	Niagara Falls project	
	2 Wilson Dam, Muscle Shoals	
	3 Mississippi River Power Company project, I	Keokuk, Iowa

(C) Future of water-power developments

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#### PROBLEMS FOR STUDY

- 1 What is the greatest difference between water supply systems of the present and those of earlier times?
- 2 Can you explain how an artesian well is made and how it works?

Norris Dam and Wilson Dam

- 3 What did modern man learn from the Egyptians about irrigation?
- 4 Show how modern incention has done a great deal to help Man the Builder control water
- 5 Is the United States justified in allowing such seeme spots as Niagara Falls to be used for power? Why?
- 6 How are you helped by man's knowledge of how to control water?
- 7 How has the United States Reclamation Service proved of great benefit to the country?
- 8 Upon what principles are great dams built? Distributing systems?
- 9 What is being done in the United States at the present time in water control?
- 10 Do you think the government should control water supply and power systems?

#### SUGGESTED ACTIVITIES

- I Find out all you can about the water supply in your city, state, town, or section of the country Make drawings, charts, and pictures Use these in a talk to your classmates on "How We Get Water "
- 2 Make a visit to the water works or power plant nearest your home. Observe how "Man the Builder" has carried out his work Find out all you can about the project
- 3 Make one of the following on a sand table or on a large piece of beaver board or cardboard

A model of a water-works A model of an aqueduct 1 model of a power-plant A model of a dam

I model of a reservoir I model of an irrigation project You can use clay, flour and salt, paper pulp, or wet paper If you have nothing else, cardboard will serve the purpose Perhaps you can think of original material to use and ways to build models Be sure to measure things to a scale and to have accurate information before you attempt the models Use the pictures in The New Wonder World, Volume Four

- 4 If you cannot build models, perhaps the drawings, diagrams, and charts that you make will help you understand how these things are made and how they work
- 5 Find out what Theodore Roosevelt did for the Reclamation Service and report to the class
- 6 On a large outline map of the United States locate dams and irrigation projects

#### UNIT IV

#### Machinery

For a topical outline of this subject, see Modern Man's Discoveries and Inventions, Page 91

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#### PROBLEMS FOR STUDY

- I Study carefully all the pictures of machinery and machine-propelled schieles in The New Words World, Volume Two Write a discussion on the topic, "How Machinery Has Changed the Building of Man"
- 2 Why were most of the textile machines invented in England?
- 3 Show how the Diesel engine has been an important factor in the decelopment of transportation
- 4 Upon what principles do all machines work? Which of these were known to early man?
- 5 Show in as many ways as you can how steam has recolutionized civilization
- 6 How has man's invention and building of machinery influenced all his building that we have studied?

#### SUGGESTED ACTIVITIES

- Collect pictures of automobiles from the earliest ones to the present. Arrange them on the bulletin board so that the class can see how they have changed. Do the same for locomotives and airplanes.
- 2 Draw a diagram and explain to the class one of the following

The loom The lathe

The Diesel engine The McCormick reaper

The electric generator

"Old Ironsides"

An American Pissenger Trun of 1867 I lectric Trains and Locomotives

3 Find the story of one of the following and tell it to your class

Gutenberg and his printing press

Li Whitney and his cotton gin

James Watt and his steam engine
Stephenson and his 'Rocket

Chas Howe and his sewing machine

George Westinghouse and his air broke

Worl of Six Pichard Arlaments

Longley a consuments with flower

Work of Sir Richard Arkwright Langlev's experiments with fiving

Cyrus Hall McCormick's reaping machine The Wright brothers

Work of Archimedes

- 4 Do one of the following
  - (a) Make a list of all the things that require machinery, steam engines, or motors to run
  - (b) Make a series of pictures showing the evolution of the automobile, the locomotive, and the airplane
  - (c) Make cartoons illustrative of the following ideas

Superiority of machine loom over the hand one

Eli Whitney's service to his country

Opposition to Elias Howe's sewing machine

The printing press grows

Importance of the printing press to mankind

Steam as the key to the Machine Age

Ridicule of early critics of the steam engine, the automobile, or flying

- 5 Look up something about the Industrial Revolution and report it to your class
- 6 As a review have a socialized recitation on "Man the Builder of Machinery" Use the materials you have collected and made, for illustration during the discussion

#### UNIT V

#### Means of Communication

- I Development of the telegraph
  - (A) Building of the first telegraph by Samuel F B Morse
  - (B) How the telegraph is constructed
  - (C) How the telegraph works
  - (D) Improvements in the telegraph since Morse
    - I Use of the relay
    - 2 Multiplex telegraphy

#### II The cable

- (A) Construction of and laying of first cable across the Atlantic, 1858
- (B) How a cable is made

#### III The telephone

- (A) The first telephone
  - 1 Work of Alexander Graham Bell
    - (a) How his telephone was made
    - (b) Principles upon which it is built
- (B) Improvements in the telephone
  - I The Blake transmitter
  - 2 The receiver
- (C) The telephone central office
  - I When you make a call
  - 2 When the line is busy
  - 3 Long distance calls
- (D) The dial telephone
- (E) Sending pictures by wire or radio

#### IV Radio and television

- (A) Scientific theory of radio
- (B) First use of wireless
  - 1 Work of James Clerk-Maxwell
  - 2 Work of Guglielmo Marconi
- (C) Building necessary to use radio
  - 1 Radio sending instruments
  - 2 The receiving set
- (D) Broadcasting
  - 1 Beginnings in Pittsburgh, Pennsylvania
  - 2 Need for regulation of wireless communication
  - 3 Frequency modulation
- (L) Television
  - 1 Methods used
  - 2 Future of television

#### PROBLEMS AND ACTIVITIES

- The best way to understand the telegraph and the telephone is to make a trip through your local telephone exchange and telegraph office. Observe carefully how things are done and ask questions about things you do not know
- 2 Why was the development of the telegraph and telephone a big step in man's progress?
- 3 Can you show that the growth of communication has been a slow but sure progress during the ages?
- 4 How were these inventions first received? Do you think that we have more or less trouble now interesting people in inventions?
- 5 What part has each of the following played in building up a system of communication?

  Guglielmo Marconi Samuel Γ B Morse

  Cyrus W Γield Alexander Graham Bell

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# EDUCATIONAL VALUES FROM THE STUDY OF SCIENCE<sup>1</sup>

#### BY SAMUEL RALPH POWERS

Professor of Natural Science, Teachers College, Columbia University

IN this discussion of the educational values of science teaching, attention is directed to the contributions that scientific study has made to the development of our economic and social order and to the contributions that it has made to modern thought. This is an age of science in the sense that present modes of living have come as a result of contributions from science, and in the sense that many of the principles that guide our thinking and the products of thought have grown out of contributions from the work of scientists. The achievements of science are the products of the relatively recent period and vet its tested truths and the methods of study that scientific workers have developed have influenced and are influenceing in enormous measure the character of our civilization We shall discuss in order (1) the contributions of science to our economic and social order and (2) the contributions of science to modern thought

# THE CONTRIBUTION OF SCIENCE TO ECONOMIC DEVELOPMENT

On the mechanical side science has in a short period of time changed our manner of living. These mechanical developments have come as a result of man's increasing control over energy transformations. The release and control of energy from natural resources has made wailable a great wealth of power With the manufacture of machinery this power is available to do the work of the world In the building of the pyramids in Egypt thousands of slaves, driven by the commands of their royal masters used their muscle power and the muscle power of beasts of burden to pull the stones into place vears were required to complete the building of a pyramid In the building of the Empire State Building in New York City workmen using power driven machinery, constructed in less than one year the tallest building the world has ever seen Power derived from the energy in coal and from the energy of falling water has been substituted for muscle power

Through the use of energy from natural resources, rate of production in all lines of endeavor has increased and the world's store of available wealth has been made enormously greater. This development has fostered a centralization of wealth in great industries and it has as a result of using energy from natural resources in place of energy from human beings reduced the demands for labor. Men have been freed from toil. One of our outstanding social problems has arisen from the fact that as men have been freed from toil they have, at the same

time, been deprived of the wage which is necessary for the purchase of food clothing, and shelter With the increase in wealth that has come through utilization of natural resources, two contrasting and opposing situations have arisen The developments in science have fostered the growth of a situation out of which there has come, on the one hand great wealth for the capitalist and. on the other dire poverty for the laborer The developments have brought leisure or idleness to both Poverty and leisure are incompatible and especially is this true when the contrast between wealth and poverty is so much in evidence The means of adjustment that were acceptable under the old order are madequate for the new We have changed rapidly from an age of human labor to an age of machine labor. Throughout the history of the race, men have sought release from the drudgery of muscular labor Science has led the way to this attainment but as yet the race has failed to make an acceptable adjustment to the changes that have come. An adjustment to these changes must be based upon an understanding of the conditions and forces that have produced them

Learning to control energy has in many ways, affected our manner of living Power from the energy of natural Movement is accomresources has made us mobile plished with ease speed, and comfort. The first journey by white men from St Louis into the Oregon country was made during the time of our great-grandparents The journey required many months and was attended by severe hardships To-day the journey may be made by airplane in the interval between sunrise and sunset The time interval for short trips has been greatly reduced A distance of twenty miles was a long journey for A day's journey in a one day in a horse and buggy modern automobile may be well over three hundred miles The great majority of those who graduate from our high schools of to-day will own and drive automobiles and many if not most of them, will fly transform energy of natural resources into mechanical energy and this is used to transport goods and people The wide ramifications of problems associated with transportation are evidence of the importance in liberal education of experiences selected to give an understanding of the developments in science that have made our present accomplishments in mobility possible

It is a highly refined control of energy transformations that makes modern communication possible. It is a relatively simple control of electrical energy that makes it possible to transmit messages by means of the tele-

<sup>&</sup>lt;sup>1</sup> This material is adapted from Chapter III Part I of the author's contribution to the Thirty-First Learbook of the National Society for the Study of Education entitled "The Teaching of Science (Public School Publishing Company, Bloomington, Illinois 1952) and is used here by special permission of that Society which reserves all copyright privileges.

graph By means of a more highly refined control, electrical energy reproduces in a telephone receiver the words spoken into the transmitter. An extremely small amount of energy transmitted through space is controlled with such a degree of precision that sounds at the microphone are most accurately reproduced by the loud speaker. Modern communication has broken down the boundaries between nations, and any country in the world may be continuously in communication with any other country. Early explorers were out of communication with their homes for months and even years. The modern air plane explorer may keep the entire world informed of his progress from the time he starts until he reaches his destination.

This is an electrical age and on account of the ease with which electrical energy may be transformed and con trolled, the great mass of our population has become, during one generation users of electrical energy. The electric light bulb was unl nown to our grandfathers at the time of their boyhood Now the energy from coal fields and from falling water is transformed by means of electric light bulbs and used to light our streets and our homes A large percentage of our factories in fact nearly all arc dependent more or less on electrical power. The industrial demands for release of energy from our natural resources are enormous, and the problems associated with production and efficient utilization of energy challenge the whole population The problems have become lead ing issues in political campugns. Problems of power development with their influence on industry, including transportation, communication, and comforts in the home, touch the lives of all and serve as a continuous challenge for clear thinking

Problems associated with control are by no means static. There is continuous refinement of methods of control working toward control with greater efficiency. Industrial plants are in a continuous process of change. Cases are common in which expensive machinery in good condition is removed and sold as junk in order to make place for new machinery that will accomplish energy transformations more efficiently. I very large concern maintains a staff of highly trained scientists who are working continuously to reduce waste and increase efficiency through more efficient utilization of materials and energy.

These illustrations show something of the nature of this industrial age. It seems cert in that man's control of energy transformations has contributed more than any other single factor to the development of it. Through the study of science we learn about the sources of energy and about how energy is transformed. As a result we acquire a fuller understanding of the industrial age in which we live and a fuller appreciation of the problems associated with life in it.

The field of health offers another illustration of the manner in which applied science has contributed to modern standards of living. There has been great progress during the past generation in the control of causes of ill health. This progress has come as a result of the scientific study of the causes of disease and through the development of measures for the control of these causes. Scientific study has led to the discovery of the organisms

that cause many of our contagious diseases. Di covers of the cause has in most cases been tollosed quiedly by discovery of the cure. The prevention of contagious disease has come largely through measures of sonitation. The successful treatment of contagious disease is largely through the use of toxins antitoxins and vaccines.

Studies in nutrition have shown that certain illnesses are due to diet deficiencies. Discuses due to diet den ciencies are likely to develop during childhood. Under standing of the causes of these discuses has come through the discovery and study of vitamins. These studies have focused attention upon the importance of a wholesome diet.

In the study and use of drugs some progress has been made. Much of this progress has been in showing the worthlessness of many drugs that have had extensive use. The human race has always sought for drug to cure its pains. The long rows of bottles on the shelves in the drug stores are imple evidence of the profits that account from the sale of drugs. Scientific study of drugs in common use has revealed the fact that most of them are use less for curing diseases and that some are positively dangerous.

Attainment from scientific study in the field of health has resulted in control of several diseases which formerly were terribly destructive of human life. Diseases that are now in large part controllable include typhoid fever diphtheria smallpox hydrophobia leprosy malana and yellow fever. The maintenance of proper standards of health through control of causes of all health is an individual and a community responsibility. Scientific study has taught us how to meet this responsibility.

In the progress of envilvation min is struggling continuously for increasingly enlarged control over nature. A prime motive in this struggle is the struggle for food. Among primitive people the natural balance of life places limitations upon man's development as an organism in this balance. Natural processes tend to limit the food supply and to keep it far below what is needed for a congested human population. Measures have been taken to increase the land area under cultivation and continued cultivation makes a demand for knowledge of artificial procedures for maintaining soil fertility. Through scientific agriculture man has acquired the controls that are necessary for the production of food for a congested population.

In his study of living things, man has learned that he may in considerable measure control, through modified tion the character of oncoming generations of plans and animals. Cattle have been moduled by breeding some in the direction of producing more beef offers in the direction of producing more and richer millare bred for laying horses are bred for speed are sheet are bred for wool. These products of breeding are 'gove' stock only in the sense that they are nore product to of tood or of other materials and qualities de ired by man In a natural struggle for existence this fire stock the aid of man imight soon become extinct tant contribution to the understanding of the art conf. of the conditions in which we live comes through ero. I edge of the manner in which man has med ted the natural balance of luc.

In this connection it should be noted that the same biological laws that govern the growth and development of plant and lower animal organisms also govern the growth and development of the human organism. Individuals should know that the characteristics of their children, such as stature obesity, and intelligence are within rather well-defined limits determined by their own characteristics and those of the man or woman chosen for husband or wife. We are in possession of knowledge with which we may modify the character of the human race itself. This is one of the responsibilities with which the world's citizenty must learn to live. The abuse of this responsibility will certainly bring its own punishment and the proper exercise of it will bring its rewards.

Illustrations of the applications of science could be extended to greater length. Those just given are enough to suggest (1) something of the extent to which man has acquired control of his physical and biological environment, (2) something of the extent to which he has used these controls to modify the character of his environment, and (3) something of the complexity of the life into which oncoming generations are entering. Our civilization is a highly artificial thing in the sense that it is a product of man's own ingenuity. This is a scientific age in the sense that science has contributed enormously to the development of our institutions and to our manner of living. Science has been the tool of man's ingenuity.

The study of science is to increase the understanding of those principles and generalizations of science that have largest application in molding the character of our society and of those which have within them potentialities for influence in the future Attainments of such understandings are important and in large measure essential for an understanding of our social lite and for effective participation in it. Understanding of principles underlying such problems as are suggested by the following are samples of desirable outcomes (1) The sources of energy and its efficient utilization, (2) the discovery of the causes of ill-health and the means of control of these causes to the end that health standards may be raised. (3) the maintenance of soil fertility, (4) the applications of the laws of heredity, and (5) the control of plant and animal pests

# THE CONTRIBUTIONS OF SCIENCE TO MODERN THOUGHT

There can be no adequate understanding of modern thought without some comprehensive understanding of the major generalizations that have been formulated from study of the nature of things Science is concerned with the testing of truth concerning natural phenomena These tested truths together with the evidence on which they stand are the basis of the knowledge by means of which the individual interprets the phenomena of expenence Educational values that come from ability to interpret natural phenomena may be even more farreaching in importance in general education than the values that come from the understanding of applications like those already illustrated The intellectual attainment of a people may be to a large extent measured by

the ability of its individuals to interpret the phenomena of their common experiences In this discussion it cannot be presumed that the development and use of such concepts are the prerogative of the philosopher or highly trained scientist. It is undoubtedly true that the thinking of the whole mass of the people has been influenced by partial or comprehensive understanding of the major generalizations of science The progress already made in the direction of attaining freedom from the bondage of superstition and from the shackles of necromancy alchemy, witchcraft astrology, and other errors of understanding furnishes abundant evidence of the importance of instruction directed toward assisting the learner to understand the phenomena of his common observation Some attempt at rationalization of observation is attempted by all thinking people. The most satisfactory rationalization is that which is based upon most carefully tested truth Some illustrations of contributions from science that have influenced and are influencing thought will be given

Common phenomena such as lightning earthquikes, and storms are no longer looked upon as my sterious afflictions visited upon the people by an irate deity. These are now seen as effects which result from natural causes many of which are well understood. Eclipses and comets are no longer looked upon as good or bad omens for their causes are satisfactorily explained. General understanding of causes such as these is of distinct educational value. It gives to the learner a feeling of security in the presence of natural forces for he is freed from the mental terror that is attendant upon ignorance concerning them.

Through the results of scientific study the world has progressed from the status which prevailed when the common belief was that the earth was flat the center of the universe and the dominating influence among the hervenly bodies to the present status when the movements of the heavenly bodies are more clearly comprehended and when the earth is seen as but one of the planets that revolves about the sun and the sun as but one of an undetermined number of stars that make up This galaxy is in turn one of an undeterour galaxy mined number of galaxies distributed through space, the dimensions of which seem incomprehensible panying this enlargement of knowledge has come a changed conception of man's place in the scheme of Attendant upon the discoveries that have things reverled the true relations between the earth and other bodies has come an enlarged conception of the age of the earth and of the duration of time

This generation has seen an enormous expansion in knowledge of the nature of matter. The relationship of matter and energy has been suggested by recognition of the electron as a discrete particle of electricity. Moseley's work on atomic numbers has served to refine the classification of the chemical elements. His work and that of others furnishes a rather positive basis for the conclusion that all elements on earth and in the universe are made up of groupings of but two kinds of particles called electrons and protons. The electrons and the protons of the earth are exactly like the electrons and protons of the sun and exactly like those of the most distant star.

In the study of living things equally great strides have

been made. Inter relationships of organisms with each other and their interactions with the physical environment have been more clearly envisaged. Organisms are continually struggling, each group against the other for survival, but all are held in check by the limitations of the physical environment. The trend of this struggle is toward a balance in nature. Wind, rain fire and other factors of nature, are continually disturbing the natural balance, and one organism and then inother is in the iscendency. Then, in obedience to the urge to reproduce their kind, the dominant organisms over populate the area to such an extent that they are checked by starvation. In this struggle for existence, man is seen as an organism guided by a conscious intent to control the factors of nature that tend to limit his development.

Studies have reveiled facts that are the basis of acceptable generalizations concerning the history of life on earth. These studies make available a body of tested truth from which to draw more secure interpretations concerning man as a biological organism and his place in the "plan of nature".

Studies in behavior are of recent origin, but we have already learned much about why we behave as we do and why other organisms behave as they do, and we have learned something about measures to be taken to control behavior. Results from studies in this field will undoubtedly occupy a place of increasing prominence in human thinling.

The values that come from the understanding of conceptions such as are suggested by the foregoing are prob ibly second to none for their potential influence on the happiness of individuals. These are the considerations that have application in private and personal thought In some manner either for good or for evil they affect the thoughts of all rational beings whatever their level of intellect or schooling. During the past decade there has been a great deal of discussion of controversial issues in religion The controversy is between the I undamentalist on the one hand who in substance accepts and supports the literal interpretations of the Old Testament and the Modernist, on the other hand who calls for such modifi cition of religious thought as seems to him necessary to make it consistent with his interpretation of the findingand of the methods of science which are the products of the modernage. The issues of this discussion cannot be considered without reference to conceptions and general izations lile those illustrated. Neither I undamentalist nor Modernist can intelligently weigh the issues of his belief without extensive and accurate knowledge of them

I vidence of the importance of the connotations of scientific conceptions and generalizations is supplied by observations of the extent to which they are challenging to the interests of children and of adults. There is an abiding interest in study that interprets the nature of things. Ment il stimuli to which we respond have their origin in phenomena of the environment. There is satisfaction from instruction that develops tested knowledge which will function in making, responses that must be made. There is satisfaction from the understanding of reasons for happenings for such understanding males it possible to respond to a greater variety of stimuli and this in turn makes for a more flexible adaptation to the

conditions of life. As respects natural phe omena the reasons for happenings are found in the contributions that have come from the work of secretics. The question of interest in instructional material is resolved into one which asks whether the instructional material habet is selected so as to supply learning which is helpful for its ing response to saturations (stimula) that come within the learner sexperience. Science saturations abound a camula on every hand. There will be no lack of interest in instruction which results in satisfactory adjustment to these stimula.

Much of the interest in natural phenomena is 10 doubt scated deeply in instinctive term and the effects have undoubtedly developed out of a normice. Lear irises from the inability to make a satisfactory adjust ment to a stimulus. The savace has been afraid of come is the aurora eclipses and other natural phenomena that are strange and unusual. This fear is for per on il safety For protection he has rested his faith in an appeal to spirits or other mysterious agencies that are as products of his own mind, stronger forces. Ordinary phenomena are now explained as effects that result from natural causes and many of these effects are clearly traced to the causes that produce them. There is interest in instrution that develops such in explanation of the e-phe nomena that the learner is able to make a sitisform mental adjustment in the presence of these phenomena There are probably no educational experiences that con tribute so immediately to the happiness of an individual as those which liberate his mind from fears and in other ways guide his thinking

The interest to this point has been in calling to after tion with illustrations the manner in which the finding of science have had direct application is factors in modifying our social institutions and systems of thought Emphasis has been on informational value with the thought that functional information furnishes the ideas that are essential to thought processes. Security in thinking is more likely to result when the ideas with which thinking is done have been scientifically tested for truth fulness. Attention is now directed to those values which are endirectly from the study of science.

#### CONCOMITANTS IN THE STUDY OF SCIENCE

In addition to direct informational outcomes there are necessarily many concomit arts to any form of that onal Attention raw not be focused upon the methods that have been employed in problem solving and that should be further applied in the solution of reproblems. In the study of science efforts are a acte to charles the methods of scientific study and every sear provided in the use of the methods of selving challing to problems Attitudes are nece and concor tare ath the under tanding of the ideas and the ander to ding of methods. In their origin, attitudes are listed than understanding for the lack of its and they are the react on of a per-onality to learning expenence. The many attitudes, that is attitudes that are coas in truth are the one that are tormed a are the other t ctory expenences in learning. The enter of the cophasites careful and accommend on

and uncontrolled phenomena as a method for determining truth, and it requires the formulation of hypotheses to explain the relationship of observed phenomena. Hypotheses are statements of most reasonable explanations and these are subject to further tests for truth and adequacy by further observation. The scientific att tudes are characterized by respect for truth and by freedom from prejudice and personal bias. An educational program for an age of science will recognize both the content and the method of science

In the study of science the scientific attitudes must be associated with the tested truth to which they are related Similarly the educator must recognize that there is no method apart from the method of doing something. In their development, at least attitudes are necessarily attitudes toward an object a situation, or a phenomenon Methods are necessarily methods of doing something A rich experience with scientific method is one in which demands are pos tively placed upon the use of the method for the solution of a problem that is real A major responsibility in planning a program of instruction is for the selection of subject matter arranged so that real problems arise out of it. Attention is focused upon the scientific method as it is used in study Scientific attitudes result from the impingement of implications respecting the generalizations and methods of science on the personality of an individual Neither the method nor the attitude can be understood if it is considered apart from functional primary learning

There is abundant evidence that the conceptions generalizations, attitudes, and methods of this field of expanding knowledge are of fundamental importance in the program of general education and that they are genuinely challenging to the interests of children and of educated adults 
Interest is challenged by recognition of the part that developments in science have played in forming the present social order and by recognition of its contribution to understanding of causes of natural phenomena There is interest in understanding how vast sources of energy are tapped and transformed to useful purposes and in the manner in which man has modified the biological environment of which he is a part Children and adults are attracted by the generalizations relating to the age of the earth, the extent of space, the movements of the heavenly bodies the nature of matter and energy, and the origins of organisms the nature of their adaptations and the functioning of their parts

The contributions of science are a product of the The body of tested knowledge has inrecent period creased through the past one hundred years at an accel erated pace Only small samplings of this have found place in the general program of liberal education, but enormous applications have been made in developing the present social order The extent to which this new body of content has within it the potentialities for thus influencing mental and social adjustments, that is for liberal education, may be measured by the extent to which this information makes it possible for the learner to respond to situations which come within his experience and without which response would be thwarted measure of educational value of experiences, that is suggested by the foregoing, is found in the extent to which such experiences assist an individual to adapt himself to the human society of which he is a part These considerations suggest the real tests of the educative value of science, whether the content be selected for so-called practical values or for cultural or liberalizing values In general education no sharp division can be drawn between subject matter of these two kinds

#### SUMM ARI

This brief overview of the field of science and the references to the relations of science to human affairs suggest the sources to which we may turn to find materials for instruction in science. The search for objectives will be one that seeks to determine the major generalizations and associated scientific attitudes that have come from the field The curriculum worker will test these ideas for relative importance by a study of the extent to which they ramify into human affairs and by an evaluation of the potentialities which they possess for influencing the physical and mental adjustments of human The teacher will capitalize the experiences of children and make them meaningful by associating them in such a manner that they contribute to the continued enlargement of the child's understanding of important The program of science teaching will be one which seeks to interpret the contributions of science to health, to safety and to the development of the economic order, and it will be one which seeks to interpret the principles and generalizations that have largest application in effecting mental and emotional adjustment of the individual to the cosmos of which he is a part



#### LIVING THINGS OTHER THAN MAN

(The problems and activities at the end of these outlines were worked out with the help of a "Tentative Course of Study in Elementary Science," by Dr. Gerald S. Crug, editor of the science chapters in Volume One, from whom permission to use it for this purpose was secured.)

#### 1 Animals

- (A) A view of the animal kingdom
  - 1 Animals before man
  - 2 Mammals
  - 3 Toothless mammals
  - 4 A mammal with wings
  - 5 The gnawers
  - 6 The cetaceans
- (B) Life habits of animals
  - 1 How food is secured
  - 2 How and where shelter is found or built
  - 3 Change of life and abode with change of seasons
  - 4 Care of young
  - 5 Community and social life
  - 6 Hibernation
  - 7 Metamorphoses
  - 8 How animals are protected and protect themselves
  - 9 Interesting peculi trities
- (C) How animals help m in

#### II Tishes, frogs and reptiles

- (1) Types
  - I Salamanders
  - 2 The avolots
  - 3 Sirens, hellbenders and mud puppies
  - 4 The newt
  - 5 Tords and frogs
    - (a) Protective coloring
    - (b) Enemies of the frog

- 7 Hoofed animals
- 8 Beasts of prev
- o Beasts and other immals of the sea
- 10 Domestic animals
- 11 Apes

- NATURE AND SCIENCE 6 Food and game fishes 7 Tortoises, turtles, and terrapin 8 The alligator o The lizard (a) The gecko (b) The chameleon 10 Snakes (a) The diamond-backed rattler (b) Common snakes (B) Usefulness to man (C) Life habits III Butterflies, moths, and other insects (A) Life story (D) Value to man (B) Seasonal changes (E) Competition with man (C) Activities (F) Extermination of undesirable insects and pests IV Birds and bird life (A) How to study birds (B) Migration (C) Winter birds (D) Story of our common birds I About the house 6 Birds of the meadows 7 Birds of the wet marsh 2 Birds of the orchard 3 Birds of the fields 8 Birds of the salt marsh o Birds on the swamp creek 4 Birds of brush and wood 10 Birds of the shore 5 Birds of the tall timber (E) Simple bird houses and how to build them (F) Banding birds (G) Economic value and protection of birds V Marine and deep-sea life (A) How plants grow 6 Roots and stems as storage houses I How plants start from seeds for plants 2 Need of sunlight 7 How seeds are scattered 3 Effect of light on some plants 4 The leaf as a "factory" 8 Effect of seasonal changes (a) Plants during winter 5 Need of good soil (a) How soil is made
  - VI Plants and trees
    - - (B) How plants give off water

      - (C) Vital activities of plants
      - (D) Herbs, shrubs, and trees
        - I A few of our native trees
          - (a) Evergreen
          - (b) Chestnuts, oaks, and others

- 2 How to recognize trees
- 3 How to tell the age of trees

#### (E) Flowers

1 Our common flowers

3 How to know flowers

- 2 Seasonal flowers
- (Γ) Necessity for preservation of plant and tree life

#### VII Nature study activities

- (A) Tramps afield
  - r How to prepare for trip
  - 2 What to look for at different seasons of the year
- 3 Where to go
- 4 The nature lover's camera

- (B) A nature aquarium
  - I How to make
  - 2 What to have in it

3 Uses

- (C) An insect collection
  - I Why insect study is important
  - 2 An outfit for the collector
- 3 How to mount and preserve specimens

- (D) Making an herbarium
  - T What to collect, and how to keep material fresh
  - 2 Pressing and drying

- 3 Mounting
- 4 Making a microscope
- 5 Leaf prints

#### VIII Summary of nature study material

#### Page and Picture References - THI NEW WONDLE WORLD

#### SUGGESTED PROBLEMS FOR THE TEACHER

- Ways in which different forms of life adapt themsel es to the cold of winter for example, the frog and the moth hibernate, certain birds migrate, the squirrel stores food, etc
- 2 How plants and trees react to seasonal changes
- 3 Ways in which animals and plants are protected and protect themselves
- 4 How the parental care of the young animals differs, and reasons for the difference
- 5 The interdependence of plant and animal life
- 6 Survival of certain species due to adaptation to en ironment
- 7 How a certain type of community life has developed among son canin als
- 8 How certain plants manufacture their own food
- 9 How plants and animals reproduce
- 10 How nature maintains a balance among lining things
- 11 How people have built up a wrong conception of danger from certain ar mallife such extle regites
- 12 The dependence of man upon plant and anin al life for existence
- 13 The necessity of consering plant and animal life
- 14 The extermination of pests

#### SUGGESTED ACTIVITIES FOR CHILDREN

- Take walks so as to observe landscape changes, and changes in plants and animals at different seasons. Plan the excursions so as to be sure to find such things as change in color, temperature changes, length of day, singing of birds, etc. The walks should be followed by informal discussions in which the teacher and children compare their observations with those of previous walks.
- Observe plant and animal life in the fall to see what preparation has been made for winter Example The lightly folded buds on trees are dormant until spring One can be cut open and the bud examined

Sprout a potato at the top of a tumbler of water This shows that the nourishment for the growth of sprouts comes from the potato which has stored it for winter Study bulbs as a storage place for the plant for winter Then raise some bulbs in water or in moist soil

- 3 Deprive a healthy plant of light for a sufficient time to note change Care for it as usual and keep another plant of the same kind and size in the sunlight so as to observe the effect of sunlight upon plant life
- 4 Read widely in books of information and magazines to find out all you can about how animals protect themselves Collect pictures and mount on cards or in a booklet according to different methods, those using horns, running, kicking, etc
- 5 Observe as many families of animals as you can to see how the young are cared for, such as hen and chickens, mother cat and kittens, or raise a family in your schoolroom, as of white rats, tadpoles, rabbits, chickens, etc
- 6 Dig up an ant hill and secure the larvæ and pupæ Place these in a jar which contains some dirt Place the jar in the center of a shallow pan with some water in it so that the jar does not touch the sides. The jar can then be uncovered. Feed the ants by placing bread crumbs or cake in the jar. Put a little honey in the jar. Observe how the ants work in a community.
- 7 Read stories of animals and tell some to your classmates
- 8 Make a collection of cocoons so as to observe the evolution of the moth
- 9 Make a collection of insects for study Make an herbarium (See The New Wonder World, Vol III, Pages 383-386)
- 10 Have an aquarium in your classroom (See The New Wonder World, Vol III, Pages 375-376)
- Find out what your state or community is doing to help conserve trees and preserve plant and animal life Take part in the discussion on the importance of doing this
- Build a bird house and watch a bird family for a season (See The New Wonder World, Vol III, Pages 314-319, Vol VI, Pages 339-340)
- Take some tramps afield either by yourself or in a group To help you plan your trips read the material in The New Worder World, Vol III, Pages 1-111 and 369-372 It would be fun to take pictures and keep records of your trips as the different seasons come and go
- 14 If you live near the ocean, collect specimens and make a study of the marine and deep-sea life found in your community
- 15 Make a nature trail on which you mark trees and flowers for study and observation as the seasons change

#### ELEMENTS OF HUMAN LIFE

- I How life begins
- II The five senses
  - (A) The human eye

(D) Nature in the telephone business

(B) Our servant smell

1 The eur

(C) Our servant taste

(L) The sense of touch

- III The human face
- IV The making of our bodies
  - (A) The blood
    - I What it is made of
    - 2 The system that carries the blood through the body
  - (B) Air tubes and lungs
    - 1 How the nose guards the lungs
    - 2 Necessity for breathing correctly
  - (C) How the body takes care of its food
  - (D) What happens when a finger is cut
  - (E) The heating system of the body
  - (F) The nervous system
- V Elements necessary to human life
  - (A) Air

(Γ) Gravity

(B) Water

(G) Sleep

(C) Light

(H) Reproduction

(D) Temperature

(I) Self-protection

- (E) Food
- VI How man adapts himself to seasonal changes
- VII Competition of human life with other forms of life
  - (A) Man's dependence upon other forms of life
- VIII Influence of weather upon man
  - IX Man's method of adaptation in comparison with that of other forms of life
  - X Necessity for selection of proper food
    - (A) Food as fuel
    - (B) Starches
    - (C) Sugars
    - (D) Tats and oils
    - (E) Life foods
    - (Γ) Proteins
    - (G) Minerals and water
    - (H) Vitamins

References — THE NEW WONDER WOFLD

Vol. III and Vol. X

#### SUGGESTED PROBLEMS FOR THE TEACHER

- I How the senses differ in different forms of life
- 2 How the beginning of all human life is the same
- 3 How the blood controls the body
- 4 How the proper selection of food leads to health and fun
- 5 How the physical properties of air affect man
- 6 How gravity helps to control all life
- 7 Necessity for centilation
- 8 Importance of a pure water supply
- o The surereal of the fittest
- 10 How to exterminate pests
- 11 How man has learned to control his environment through knowledge and use of physical and chemical changes

#### SUGGESTED ACTIVITIES FOR CHILDREN

- I Find out about Harvey and his discovery of the circulation of the blood and report to the class your findings
- 2 Check and adjust the temperature and ventilation in your class room daily
- 3 Learn which insects are friends and which are enemies of man. Help exterminate some pests
- 4 Through your reading and observation prove that man has adapted himself to his environment mainly through the use of his mental capacities
- 5 Learn all you can about what your community does to keep the water supply pure Have a class discussion
- 6 Show that there is air in your schoolroom
- 7 Make a list of the foods you have for breakfast or lunch for one week and decide if they have been properly selected and why

#### A GLIMPSE OF ASTRONOMY

- I Old and new ideas of the earth, sun and stars
  - (A) When people thought the world was flat
    - I Greek myth of Atlas
    - 2 Mercator's ideas
    - 3 The Sun God Apollo
    - 4 Copernicus and his great discovery
  - (B) The great star gazers
    - 1 Ptolemy, Copernicus
    - 2 Tycho Brahe
    - 3 Galıleo
    - 4 Newton
    - 5 Herschel
- II The astronomical evolution of the earth
  - (A) Age and size of the earth
  - (B) How the surface of the earth has changed and developed
    - I Lack of atmosphere at first due to smallness
    - 2 Development of volcanoes

- 3 Formation of oceans
- 4 The story found in rocks
- 5 Ages of earth building
  - (a) Archeozoic or "Beginning Life 'Age
  - (b) Paleozoic Age
  - (c) Mesozoic Age
  - (d) Third geological era
  - (e) Fourth geological era
- 6 Change in the earth's crust
- 7 Formation of the earth according to scientific hypothesis
  - (a) Earth's three blankets
    - 1 Rock
    - 2 Water
    - 3 Air

#### III Earth's position and relation to other heavenly bodies

- (A) The sun as the source of light and energy
  - 1 Size and distance
  - 2 How we know the sun turns around
  - 3 Where the sun gets its light
  - 4 How the life of the earth depends upon the sun
    - (a) Light, energy, heat
  - 5 Why we have change of seasons
  - 6 Why we have day and night
- (B) The moon and the earth
  - 1 Distance from earth
  - 2 Why she seems to change her shape
  - 3 Surface of the moon
  - 4 Revolution of the moon about the earth
    - (a) Phases of the moon
  - 5 Effect of the gravitation of the sun and moon
    - (a) What gravitation is
    - (b) Tides
- (C) The solar system
  - 1 The sun as center
  - 2 Place of the earth
  - 3 The planets
    - (a) Difference between a star and a planet
    - (b) Comets
  - 4 The stars
    - (a) The sun a star
    - (b) Constellations
    - (c) Shooting stars
    - (d) The Milky Way

#### Page and Picture References - THE NEW WONDER WORLD

#### Volume I

I (1) Pages 1-7 (B) Pages 60-64

Pages 65-76

- III (1) Pages 7-18
  - (B) Pages 10-11
  - (C) Page- 31-59

#### SUGGESTED PROBLEMS FOR THE TEACHER

- I How man's conception of the truth about the earth has changed through the centuries
- 2 The rastness of space
- 3 How the change of season affects the landscape and the life of man animals, and plants
- 4 Value of the sun to life on carth
- 5 How the earth turns around, causing day and night
- 6 How the visibility of objects depends upon whether they are a source of light or reflect the light from other sources
- 7 The size of the earth in comparison with the sun
- 8 How a star differs from a planet
- 9 How the earth is located in relation to other astronomical bodies
- 10 The size of the moon in comparison with the earth
- 11 How the moon's phases are determined by the movement of the earth and the reflected light of the sun
- 12 Why the days grow shorter during the fall and longer in the spring
- 13 How scientists explain the formation of the earth

#### SUGGESTED ACTIVITIES FOR CHILDREN

- 1 Read about some of the great star gazers, and report to your class the discoveries they made that changed man's thinking in connection with ideas of the sun earth, and stars
- 2 Keep a record of the hour of sunset and of sunrise for a month Notice the changing position of the sun
- 3 Observe and keep a record of some shadows from week to week
- 4 Study an almanac or calendar and keep a record of the phases of the moon for a month
- 5 Dramatize or demonstrate the movements of the earth and moon
- 6 Keep a weather map for a month
- 7 Make a sun dial
- 8 Make a booklet on the planets recording interesting facts that you can find about each one Diagrams and illustrations will add to its attractiveness

#### THE EARTH'S THREE BLANKETS

- I The ocean of air in which we live
  - (A) What air is
  - (B) Weighing air
  - (C) Water in air
    - I How air gives up water
    - 2 How air takes up water
    - 3 How clouds and fog are formed
    - 4 Rain and snow, hail, sleet, and ice
    - 5 Effect on rainfall
  - (D) Winds
  - (E) The earth's atmosphere
  - (F) Air pressure and force
  - (G) Difference in air breathed in and air breathed out

- (H) What air does with light
  - I Why the prism makes colors
  - 2 The make-up of a ray of light
  - 3 What light is
  - 4 How colors are made
  - 5 The solar spectrum
  - 6 Why things have different colors
  - 7 Why the sky is blue
  - 8 The rainbow
  - o Cloud colors and sunsets
- (I) The production and transmission of sound
  - I Sound waves and messages
- (I) Weather changes and air
  - 1 Climate
- (K) Dependence of mankind upon air
- II The rock blanket of the earth's crust
  - (A) How the earth's surface has changed and is changing
    - 1 Volcanoes
      - (a) What they are
      - (b) Where found
      - (c) Kinds of volcanoes and lava
      - (d) Some famous volcanoes
    - 2 Earthquakes
      - (a) Causes
      - (b) The earthquake belt
      - (c) Earthquakes and earth building
      - (d) Some famous earthquakes
  - (B) Mountains
    - r How mountains are formed
    - 2 Climates of mountains
  - (C) Deserts
    - Why we have deserts
    - 2 What air does to deserts
    - 3 Oases and desert plants
  - (D) Mineral wealth buried in the earth
  - (E) How gravel, sand, and mud become rocks
  - (F) How soil is made from stone
- III The water blanket in which three-fourths of the earth's surface is wrapped
  - (A) Rain and what becomes of it
  - (B) Glaciers and iceberge
    - 1 Ice
  - (C) Hot springs and gevsers
    - 1 Steam
  - (D) Rivers
    - r What a river is
    - 2 The river bed
    - 3 Floods and flood sersons
    - 4 Scientific story of some of the great rivers

- 3 Violent forces of nature
  - (a) Avalanches
  - (b) Whirlwinds and cyclones
  - (c) Tornadocs
  - (d) Destructive floods
- 4 Work of water in making this change
  - (a) River valleys and deltas
  - (b) Underground caves
    - 1 Famous caves

- (E) Waterfalls and rapids
  - 1 Causes
  - 2 Famous waterfalls
- (F) Underground rivers
- (G) The sea
  - What ocean waves are
  - 2 What sea salt is
  - 3 The tides
  - 4 Ocean currents
  - 5 The bottom of the sea
  - 6 Life in the sea

#### Page References - THE NEW WONDER WORLD

I Vol I, Pages 77-101

Vol X, Pages 247-248, 309-323 II Vol I, Pages 68-77, 114-123, 128-137, 160, 178-194

III Vol I, Pages 144-170, 195-258

#### SUGGESTED PROBLEMS FOR THE TEACHER

- I How are is weighed
- 2 How to read a weather map
- 3 Measuring temperature of the air about us
- 4 The inter-relation of air and water
- 5 The causes of winds
- 6 How ice forms at the top of water
- 7 How water can be turned into ice and steam
- 8 The causes of the rainbow
- o What is above the air?
- 10 How man has utilized air

#### SUGGESTED ACTIVITIES FOR CHILDREN

- I Learn to use a barometer and a thermometer for measuring air pressure and temperature
- Observe evidences of change in the earth's surface in your own community and try to determine the causes
- Cork it tightly and let it freeze Examine the bottle Can you explain Fill a bottle with water what has happened?
- Make a study of snowflakes Collect them on pieces of cloth Examine with a lens or microscope to note interesting sizes and shapes
- Make a list of all the evidences of evaporation that you can observe such as dew, moisture on the outside of a pitcher of ice water, etc
- 6 Freeze water in a pan and watch the process of freezing Where does the ice form? Why?
- Devise an experiment to prove to your group that there is moisture in the air
- Demonstrate to your class how water can be turned into steam
- 9 Study the soil and rock in your vicinity Collect specimens for a school exhibit

#### MEN WHO HAVE CONTRIBUTED TO MAN'S CHANGING IDEAS OF SCIENCE

- I Early scientists
  - (A) Thales as the first great scientist
  - (B) Democritus and Euclid
  - (C) Hipparchus, the father of Astronomy
  - (D) Hippocrates, the father of Medicine
  - (E) Aristotle, the father of Biology

#### II Scientists of the 15th and 16th centuries

- (A) Leonardo da Vinci
- (B) Galıleo
- (C) Copernicus
- (D) Harvey

#### III Later scientists

- (A) Lamarck
- (B) Descartes
- (C) Newton
- (D) Dalton
- (E) Humboldt

#### IV A modern group

- (A) Madame and Professor Curie
- (B) Edison
- (C) Bell
- (D) Marconi
- (E) Pasteur
- (F) Charles Darwin

#### SUGGESTED ACTIVITIES FOR CHILDREN

- I Study intensively the work of one or two great scientists so as to be able to show your group ho their work changed scientific thinking
- 2 Prove that man's conception of scientific truth changes by tracing the history of one science through the contributions of its great men in different periods of history
- Make a chart for the bulletin board showing the contributions of different scientists to the vorld
- Read "Microbe Hunters" or another book that tells the story of great scientists
- 5 In a report to your group show that scientists have been man's greatest benefactors

Science Topics which have been developed under the headings Manthe Discoverer are Irventor, and Man the Builder, in the Social Studies Outlines of this book

I Important Fuels Their Conservation and 4 Science and Invention

Efficient Use for Power and Heat

- Sources and Uses of Power
- Electricity

- 5 Water Supply Systems
- 6 Methods of Transportation and Communica on
- 7 The Principles of Machines



CHARITY, FROM THE PAINTING BY ABBOTT THAYER

## OUR WORK AND PLAY WITH CHILDREN

#### By PAPTY S HILL

Professor Emeritus of Education, Teachers Coilege, Columbia University

WITH the present emphasis on the great importance of the education of the very young child mothers turn repeatedly to educators and ask "What shall we do with our children before they enter school?" This question is of utmost significance, and the present and future happiness of children often depends upon the parents ability to get a helpful answer

We must realize that there are two aspects of develop ment in all of the school subjects but especially those along the lines of music, drama the arts, crafts and industries One of these might be called the art of apprecia tion. Ability to appreciate the literature, art, music, and sciences created by genius in present and past generations may be developed by the presentation of stories poetry, songs, and games far more beautiful and significant than those the child is capable of creating, but it must be remembered that the ability to enjoy and understand artforms on higher levels than our creations is greatly in creased through our own efforts at creative expression along the same lines, crude as these may be. I or this reason, all those early attempts of children to create rhymes, tales, dances, and chants should be respected and encouraged, and utilized not only for the developing processes involved in them but because they pave the way for later ability to interpret and appreciate the genius of the race. Training in both appreciation and creation must go hand in hand in education, as they react upon each other, each stimulating the other to its miximum growth

#### JINGLES, RHYMFS AND POETRY

Art in early childhood has such humble beginnings that the majority of adults full to realize the worth of these apparently insignificant seedlings or rootlets which must be respected and developed as the point of departure for later growth. For example, the tiny baby's ear is caught by jingle and rhyme which it can more nearly appreciate than understand. "Pat a cake pat a cake baker's man," says mother. Baby smiles and mother repeats it, not because she fully realizes that Mother Goose with its rhyme and rhythm may serve as the foundation for later appreciation of rhyme and rhythm in great poetry, but because the baby smiles in response. A little girl less than two found endless satisfaction out of riding on her father's kneeping and satisfaction out of riding on her

' Here we go to the big bug town
The big bug town,
The big bug town
With the one foot up
And the other foot down
Down, down
Down, down, Down'

Pure nonsense says the unthinling adult, but not so to the baby. She smiles not because of the humor, but by cause of the satisfaction which results from this appeal to an early need for rhyme and rhythm. Later in the child's development such familiar rhymes as the catour ! in Mother Goose are repeated until they become an old story and the child's own creative efforts stir the desire to modify these lines now grown too familiar. These old experiences must now give way to the thrill of a new order? his own making. The mother unprepared for the new experience recites, "one, two 'expecting the child to followith "Buckle my shoc," but he surprises her with. One two. Who are you?" This ibility to after the expected response and surprise the mother is one of the early form of humor and must be utilized even though rather clemen tal in form

These are beginnings only, but through feeding children's native interest in listening to and reciting Mother Goose and other good rhymes, they are prepared later for poetry of a high order such as Robert Louis Stevenson's "Windy Nights"

"Whenever the moon and stars are set Whenever the wind is high All night long in the dark and wet A man goes riding by I ate in the night when the fires are out Why does he gallop and gallop about

Or again 'Twinkle twinkle little star simple and child like as it is may prepare the way for an appreciation of the beautiful lines of Sappho in her. I vening Star

Sweet evening star
That bringest all things home
That day has scattered far
Thou bringest home the flo I
And the herd thou fetchest back
And the child unto its mother
Thou syeet evening star

The effect of thome and thother in stomp or the filet indelible upon memory has been appreciated by even the most primitive people. It still survives with a line of useful thomes as. Thirty days hash September appliance and November?

#### THE STORY AND FOLE TALE

It is notonishing how early the young child lyngs to manifest interest in the mere relyting of a surfer mere events or incidents strung toged in the conformance emplified in such simple tiles as Tre O'd Wemping the Pig tor. The Cot and the Mode To the extraction

cellent examples of the most elementary beginnings of plot appreciation They are nothing more than a chain of events with repetition in rhythmic form. The monotony of form may be relieved from time to time by a slight variation in words or events. The baby mind can follow these elementary beginnings of plot long before he can grasp such complicated plot-forms as those found in such stories as "Sleeping Beauty" or "Beauty and the Beast" In such types of stories as the latter, one chain of events proceeds just so far, when it must be temporarily dropped exactly as a chapter is ended in the novel, or the act in a drama Then a new series of events with a different group of personalities, must be started that the two series of events may later converge, producing a surprising or pleasurable climax The complications of events and varied personalities in the plot of "Sleeping Beauty" are relatively complex when compared with the simplicity of plot structure found in such a story as "The Old Woman and Her Pig"

Some tales are part poetry and part prose. With these there is a tendency to have the events repeated in cracily the same words which the child begins to anticipate after a few repetitions. Such stories are exceedingly valuable in the child's development because through repetition he gains the beginnings of the literary form of the story as well as the content. As a result a little later we find him ready to tell the tale to himself or to others.

Many folk tales relate savage events which would shock children with their cruelty if children had the background of experience to interpret their full import. Fortunately most details such as "The King cut off his head," or "the cat bit off the mouse's tail," carry no sense of Nevertheless, children differ greatly, and both parents and teachers should be exceedingly careful to observe the effects of such events on sensitive minds "Blue Beard" and even "Little Red Riding Hood" have often proved too fearful for super-sensitive children Scientific observers have traced serious consequences directly to such stories Every group of children may have one high-strung, neurotic child who must be pro-A little girl of this type heard the expression "fish bite you" in a story related by another child seemed harmless enough at the time but this image reappeared at bed time, interfering with sleep and crusing fear of darkness Even though this problem was handled by unusually intelligent parents it persisted for months, producing nightmares and night horrors most distressing to the child and the household

Some of the very best authorities on children's literature believe that all stories in early life should grow out of the child's simple, everyday experiences in washing and dressing, eating sleeping walking, etc. One of the very best books to meet this need is the 'little volume called "Here and Now Stories' by Mrs. Lucy Sprague Mitchell While this collection of stories is an exceedingly thoughtful contribution to the problem of stories suitable for very young children it seems practically impossible, and perhaps inadvisable, to attempt to confine all stories for little children to these realistic aspects of their daily lives. Nevertheless stories based upon the recital of the daily routine activities of their own lives admirably prepare older children for the intelligent appreciation of stories of

the "There and Then" type which carry them over into the life activities of other people in more remote times and places

We should be on the lookout for that epoch-making period in children's lives when they are trying to draw the distinction between the world of fact and the world of When this stage arrives, we are facing a serious crisis in the child's existence, one that should be frankly and intelligently met "Do you believe in fairies?" says Peter Pan, and so says every child at a certain period in his growth — a stage which comes to some children earlier than to others Stones of Santa Claus present this problem in one of its most serious forms. At such a crisis in a child's life even religious stories may only increase the confusion already existing in the child's mind and may set up grave doubts This is especially the case with stones of miracles One needs to be very clear-headed one's self regarding one's own personal interpretation of the miraculous aspects of Biblical literature or we may find ourselves as well as the child in deep water William James pointed out the fact that children to-day are born into a scientific era, far more advanced than any dreamed of by our ancestors In many instances children attending progressive schools of the present day are more mature in their scientific knowledge and attitude than their parents who are the products of schools which came into existence before many scientific facts were available for either adult or child This sets up a problem which parents are often unprepared to meet Such children may need totally different presentations of stories of miraculous events from those told to us in our childhood We must be ready to help such children to realize that some things are eternally true - true now and always - even when the letter of truth must give place to spiritual interpretations

The presentations of the Santa Claus my this have been peculiarly unintelligently handled, as most grown people attempt to hamper the child when it tries to straighten out fact and fancy in this field Often it is an unconscious form of self-indulgence which drives adults to continue to tighten the hold of the fanciful or make-believe world on children's minds at the very moment when they need our most intelligent assistance in getting at the kind or degree of truth which remains when the acceptance of myth as fact must be outgrown We forget that many myths and fairy tales now relegated to the fanciful imagination of childhood were formerly accepted by adult society as truthful explanations of the phenomena of nature and the life of man As the spirit of science developed, the acceptance of myth as a statement of fact had to be outgrown Children seem to pass through a like experience

We are often guilty of tying the "letter of truth" too tightly in our first presentation of Santa Claus myths. A less literal presentation of the outset, might tide the child over the transition period with less regret for all parties concerned. A little friend of eight years, sensing the pleasure of the grown-ups in her apparently unshaken faith in a literal Santa Claus, kept up the game several years after her enlightenment. When an accident betrayed her game, she was severely taxed for her deception. When an explanation was demanded, she gave as

her reason, weeping bitterly, "Why, I felt so sorry for you That's why!"

This transition period from phantasy to fact may be ministered to in many ways. There is a great need at this time for good factual literature of "really truly stories". We need more genuinely heroic stories—stories of hero ism in the life of man and the animals. These hero stories beautifully told might enable the child to discover the sense of thrill and adventure to be found in the world of reality. A little boy going through this process of transition pursued adults with the morning newspaper in hand with requests of read something "really true." It was a difficult task to find news, though "fit to print" suitable for the mind of a child, but diligence was rewarded and day after day, bits of worthwhile news were read and accepted by the little boy with genuine pleasure and benefit

We are wilking on delicate ground when we are guiding children through this painful transition period. If they are not guided with wisdom and skill they may go through or remain in a distressing period of disillusionment, which not only spoils the Christmas seasons in the future but may influence the child's attitude toward reality for all time Such individuals tend to find beauty and truth only in the world of make believe, or fiction One of the most serious outcomes of such experiences is the tendency of the disillusioned child to seek release from the life of adjustments demanded by daily experience with things and with people by withdrawing from a hard world of reality into a world of fancy and male believe where no adjustments are necessary. At this time, adjustments to people and things should be made as happy and satisfy ing to the child as possible. The tendency of this transi tion to leave disillusionment in its train might be avoided entirely if we looked ahead. There are several outstand ing means which, if used intelligently would carry the child through happily and satisfactorily first and fore most, through the presentation of all fanciful stories with little emphasis upon the literal acceptance of the fanciful aspects second, through happy adjustments to the reali ties of life whether with plastic materials plants animals other children or adults. Provisions for happy experi ences with nature, especially with flowers and pets if pro tected and nurtured may bring deep satisfaction into the child's heart. Or, again most satisfying results may follow if plastic play materials are provided especially those materials which respond readily to the child's changes in thought and feeling. Last, but not least are wise provisions for increasing opportunities in which the child may find enjoyment in experiences with other people If adjustment to things and people are too painful and difficult we should be careful to find situations where first adjustments bring pleasure. Too great difficulties with things and too much conflict with other people may de feat our purpose. These may only serve to drive the child back into the world of make believe as the only world in which happiness exists. I iterature fanciful or realistic may serve two purposes. It may serve to interpret life, or it may give the individual rest or release from the stress and strain of daily life with its continued demands for adjustment to hard reality. But it is important to remember that this very demand for adjustment to reality produces sanity of mind and emotion especially

when accompanied by a sense of satisfaction. Although not passing through this trun ition in a hore updated itely filled with unhappy conflicts has suddenly developed an unexpected devotion to a rither simble grande be (formerly dishled) because he tells and he is to her functiful stories on long valls staken together only lengther are seated on benches in the park. A most unitable on passion for highly imaginative literature is minute in itself resorted to as the only protection that the children find to word the pain experienced in a mid-disk done.

At times one is in doubt regarding the adve dally of telling children sid stories particularly tho exith in un happy ending. Not only do tragedy and comody exit in idult literature but in all life and this loald seem to point to the advisability of introducing the child, rade the to the vicarious experiences of tragedy as yell as contedy Some children at certain periods of development is pecially little airls tend to a allow in sid stones. They love to weep over the imaginary sorrows of the world. It goes without saving that this should not be encoura ed as it may develop into sentimentality such as that desembed by William James as he say it exemplified in a Russian woman of royal linear c who sat inside a theatre weeping over a hero who was frozen to death while her own coachm in waiting outside was almost perishing with A touch of melancholy or transfer enricles all life but indulged in too early and too exclusively may develop into a tendency to melancholia unwholesome for child or adult.

Stories of the comedy type are difficult to provide tochildren is their sense of humor is so exceedingly election tal and crude but it must be met and developed no mat ter how primitive the starting point may have to be. The comic sections of our duly new papers recet this need on its lowest plane. Nevertheless the demand is so great that newspapers have found it economically a good in vestment. We could afford to be more critical of the "comics" or the funnics which children or 1 a so engerly if we had the ingenuity and insight to provide an equally satisfying substitute. Unfortunitely by h for ourselves and children most idults lose what sense or comedy they may possess in their association with end We who engerly attend performances of such comedies as The Comedy of I rrors She Stongs to Conquer or a modern review in a most orthy scare? for a humorous interpretation of life immediately a area an exalgerated attitude of dignity and disapproval at the first manifestation of horseplay in children. We are desperately afraid of comedy in children and have lit in or no preparation for the utilization of these crite by ginnings in developing a basis for acquire con rely. A te experiments are now being conducted along these in which it is hoped may prove to be or orthinde cliques comedy on the highest level the young child can preciate

How for literature walls offects conding of do not a present know. Ho ever many offections to prom More I decision find ourselves unable to a role of a string — a tendency which come is the containty trace to the story of the box of a company of contest because he had had the foreign of plane of string in his poole.

Pictured literature seems to hold a closer relation to conduct than the printed page or the recited word. This is especially true of the movies. One investigation of crime in child life seemed to indicate that the real danger in movies lies in the fact that while a story relates wrongdoing only, the picture illustrates in most unmistabile and concrete form the actual technique of the criminal act. Pictures are closer to first-hand experience than a printed or spoken word and they may have tremendous power in stamping thought permanently upon the child's impressionable mind. For this reason we should endeavor to have the best artists portray thought for children in a form worthy to be remembered for all time. Fortunately our best artists are now taking great delight in illustrating books for tiny children.

#### SONGS AND GAMES

Long before the baby is able to respond to story or picture it manifests genuine pleasure in melody and rhy thm Lullabies are as ancient as babies and mothers and testify to the immense importance of music in early life. A song for little children should be simple in content and form and of short duration. Repetition helps here as in early literature, for the baby often surprises us by his unexpected attempts to give back the song which he has heard weeks before. A song should be a poetic and musical embodiment of a wholesome desirable mood. We have not only the ancient folk songs which have stood the test of time, but our best composers as our best artists, are glad to provide little children with good music.

Musical education begins almost at birth. Children should be sung to long before they can respond in song, thus laving the foundation for his desire to sing for himself. While singing in groups is a desirable and pleasing experience tending to unify the group as they one and all respond simultaneously to a like emotion, we must not lose sight of the fact that individual difficulties in pitch, tone breathing and phrasing may remain undiscovered until they have become habitual. For this reason opportunities to sing alone provide the best means for discovering the individual child's need for musical assistance.

Historically we came to appreciate the art value of folk songs and folk dances long before we realized the beauty in folk games

Little children are not sufficiently mature either intellectually or socially to participate in organized games and dances. These should be preceded by simple forms of dramatic play which all children create for themselves. After this less highly organized dramatic play has been

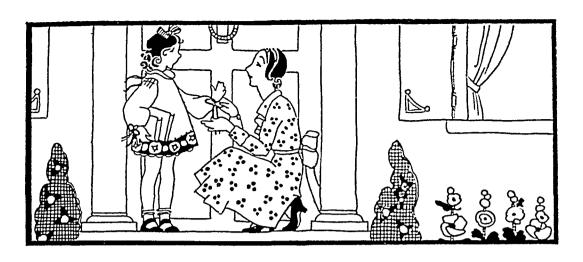
richly satisfied we may gradually introduce children to some of the simpler forms of those beautiful folk games and dances which all races have created and which survive from age to age, largely because of their beauty Early forms of unorganized dramatic play gradually develop into the desire to create or act little dramas. In these we see the desire to "dress up", set the stage and act a part These prepare the way for dramatic appreciation in mature forms Progressive schools of the present day recognize this need of children and most festival days are celebrated with processionals, pageants, or dramas written staged, and acted by the children with parents as Such occasions wisely planned and executed leve happy memories and provide most wholesome forms of social experience for all ages to participate in or to appreciate from the standpoint of the spectator

#### FINE AND INDUSTRIAL ARTS

Children are preeminently doers They love to talk sing, draw, print, model, build, and construct Native impulses along these lines are exceedingly valuable forms of education, especially in carly life. Froebel was one of the earliest to point out the fact that what the child draws or imitates he is endeavoring to understand. To-day such leaders in educational thought as Dr John Dewey emphysize the fact that we do not first gain ideas and then express them but that through attempts to express ideas in play whether through drawing painting or modelling we clarify ideas and bring them to a fuller meaning and understanding In other words all these modes of expre-sion are the result of the child's desire to lay hold of the meaning of life its significance for him. As he talks draws, sings, models, or constructs, the ideas begin to grow clearer, more distinct, and life takes on a new meaning For this reason play materials for drawing, painting, modelling, gardening, and constructing should be provided in both the home and the school

All of the foregoing implies the need for closer contacts between home and school so that these two great agencies may work in close cooperation and share the same views on the desirable development of the child. Through these contacts the child's ways and needs may be better understood and, instead of the school counteracting the desirable home influence or the home undoing the school's efforts the same aims guide his conduct for his entire day. Then if these aims are wisely chosen a happy, well-adjusted satisfactorily equipped child is started on his way through life.

See al o Introduction to Volume IX by Miss Hill



### FOR MOTHERS AND TEACHERS OF YOUNGER CHILDREN

## Outlines of Suggested Activities

There was a time when a mother who fed her child, kept him clean, and provided a safe place for him to play considered that she had done everything which a good mother needed to do. We now know that a child so cared for might, when compared with other children, seem uninteresting overly shy, less keen and less able. What makes other children seem brighter? Many times it is the attention which someone in the home has given to answering the child's questions, to what he plays, the way in which he handles materials, what stories are read to him, what music he hears and what chances he has to play with other children. We cannot blame mothers who fall short of giving their children a rich, happy life before going to school because until recently there was little material available to give mothers the help they needed and wanted

Pre-school years are the foundation years of the child's life—the years when his habits are formed, his character is built, and his interests are awakened. Home is the little child's world. It is a world with many doors and windows opening into the world of play, the world of song and story, the world of beauty and Nature, the world of fact and tance. It is the little child himself who opens the doors and windows into all of these worlds of interest by the questions he asks.

When the child asks "Mother, what makes it rain? Where does the sun go at night? he is peering through the window into the great world of science. When he asks 'What makes the flowers grow and what makes the birds flv?, he is opening the door into the fascinating study of Nature. When he asks, "What makes the grass green and the sky blue? his interest in color beauty, and art is awakening. When he eagerly listens to stories and poetry he is entering into the delights of the great world of literature. But what he finds when he peers through the vindows and opens the doors into these worlds depends largely upon the mother. It is to assist the mother in entering into all of these interesting fields of exploration with her child and sharing vith him the delights of discovery, that the following outline has been compiled.

Various phases of child development have been considered and activities to promote continued interest and to further growth for each have been listed. No attempt has been made in this outline to exhaust the possibilities of The New Wonder World. However, the mother will have no difficulty in finding other activities to suit any age level of the pre-school child. The suggentions of the following pages may also remind her of others which she may vish to add to this pich program.

#### CHILD HEALTH, MOTHER'S DAILY CONCERN

Since the health of the pre-school child requires the proper balance and variety of foods, perhaps the mother's knowledge of foods is the greatest health insurance for the child

T.	OLUME	PAGE		/ OLUME	PAGE
(A) Food			Milk and Butter	П	296
Food and Life, by Dr Walter H			Food From Far and Near	II	277
Eddy	$\mathbf{x}$	369	Food Preservation	II	369
Life Foods	$\mathbf{x}$	377	(B) Tresh Air	$\mathbf{X}$	331
Nature as Cook	$\mathbf{X}$	372	(C) Sleep	$\mathbf{X}$	364
Food as Fuel	$\mathbf{X}$	373	(D) Weight and Height	$\mathbf{X}$	367
Starches—Stored Foods	$\mathbf{X}$	374	(E) What happens		J. 1
Sugars—Prepared Foods	$\mathbf{x}$	375	When you cut your finger	$\mathbf{x}$	350
Fats and Oils—Concentrated Foods	$\mathbf{x}$	376	When you burn your finger	$\mathbf{X}$	362
Proteins—Foods Next to Life	$\mathbf{X}$	379	When you have a cold	$\mathbf{X}$	352
Minerals and Water	$\mathbf{X}$	380	(F) Health Education, by Willis A		~5-
\itamins-For Growth and Health	X	382	Sutton	XI	17

#### CHILD'S MENTAL HEALTH

Equally important with the physical health is the child's mental health which also requires the proper balance and variety of mental food. The baby needs baby-plays, nursery rhymes, jingles poetry, and songs to develop rhythm. Later he needs fairly stories and pictures to keep alive the imagination, true stories to instil the love of truth, stories of real people to provide incentives and inspiration, and pictures and stories to develop appreciation of beauty in art and Nature

(A) Baby-plays help the child to discover himself, his face, his bands, fingers, toes, and whole body. This bodily movement is a means of self development, teaching mental control of motor activity.

Face games	$\mathbf{I}\mathbf{X}$	7
Finger game	IX	7
Hand plays	IX	7-8
Pat-a-cake	IX	7
One, Two	IX	01
This Little Pig	IX	7
To Market, To Market	IX	Š
Dance to Your Daddy	IX	9
Bye, Baby Bunting	IX	20
Here's the Church	17.	77

- (B) Natural delight in rhythm causes the baby to sway his body, clap his hands and often stop crying when he hears music or verses with marked rhythm
  - (1) Verses accompanied by bodily expression Wynken, Blynken, and Ned IXSweet and Low IX5 Prayers IX5 The Sleepy Song IX3 Silver IX2 How Does Your Garden Grow? IX16 Hush-a-by, Baby IX5 See Saw IX9 A Ship A-Sailing IX22

Other verses which may be read to the child for the sike of rhythm—Volume IX, pages 2-27, 97-111, 117-120, 142-172, Volume V, 142-155, Volume VIII, 24-38

(b) Games accompanied by sing	ang an	d action
London Bridge		11, 232
Round the Mulberry Bush	IX 10	D-II, 232
The Farmer in the Dell	IX	11
Ring a ring-a-roses	$\mathbf{IX}$	or
This is the Way	$\mathbf{I}\mathbf{X}$	9
Come Out to Play	$\mathbf{IX}$	10
Polly and Sukey	IX	21, 235
		4.7

(c) Songs accompanied by action A mother who reads and sings to her child is laying the foundation for his desire to read and sing for himself

Little Bo-Peep	IX	231
Jack and Jill	IX	231
Mulberry Bush	IX	232
London Bridge	IX	232
Round and Round the Villa	ge IX	233
Oh Dear! What Can the M	[at-	
ter Be	IX	234
Polly, Put the Kettle On	$\mathbf{I}\mathbf{X}$	235
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Marching Song	$\mathbf{I}\mathbf{X}$	245
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The Citerpillar	ix	240	The Types IX (
A Little Dincing Song	11	250	· · · · · · · · · · · · · · · · · · ·
Run	11	251	(C) Imaginative stories and pictures p. 4. th
M trching Song	17	252	child's sense of humor and feed have a re-
(d) "How Music Begin" for in			tion
formation of mother	1	2,5	(i) I airy stories and foll tales with their sea
"The Child's Lnjoyment of	•	- 73	plicity of form and beauty of lance care the child a background of universal tracks.
	IX 2	2, 224	beauty After the child his heard the
"Singing Time"		53 254	stories read aloud later he van's to read
(e) Rhythmical activities for chi			them for himself. Besides the pleasure be
counting or to music	iu to	uo to	receives he is getting a foundation for th
Play a toy drum or triangle			appreciation of all literature
Clap hands in time to music			The Cat and the Mon. 15
Dance his toys			The Three Bears IN 10
March around the room			The Three Little Pies IN 40
Bounce a rubber ball on an clast	ıc		The Old Woman and her Six
Climb steps			pence IX
Rock a doll to sleep in her arms of	or in a	cradle	Little Red Kiding Hood   18
Ride a kiddy c ir			The Story of Chicken Lieben IX 4'
Imitate a high stepping horse			The Lives and the Shoemaker IN 48
(f) The rhythm of repetition in vers	sc and	storics	Hims Net Shis IN 70
also delights the child. They are	ı valur	ıble in	The Little Red Hen IX -
fixing the repeated words or pl	IT ISUS	in the	(b) Good pictures speak a child's language
child s memory, thus adding to hi	s voc il	oul try	They trouse his interest develop his apprent
Verses with repetition or refr in			tion for the beautiful and make ideas clearer
This Little Pig	IX	7	to him than words
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The Jumblies	17	170	Ruth Gleaning 1 v 273 One Step at a Time 1 v 14
How to Get Breil fist Little Raindrops	17	180 180	11 D 1
Mother Hubbard and Her Do			7) 7)1 ( 1) 1)1
		10 19	The Kain Makers IN 10121
Stories with repetition or refr in	73		The Wind Githerers IN 1 4 1 5
The Cat and the Mouse The Three Bears	1./ 1./	33	The Lent Willers IN 1 1 1
The Three I ittle Pigs	IZ.	ან	The Kittens at School IN Office 151
The Old Woman and Her Six		40	The Old Woman in He+ bas
pence	IZ	4	Let IX 6
The Story of Chicken Licken	IX	46	The Stringest Old Ar b 1 N Opp 1-2
The Little Red Hen	IX	74	Don't Cry Over Spilt Mill IX 187
(g) Through verses and stories and	throu	h the	The Cooling Leson IN 18
rhythm of counting the child g			The Man in the Meon IX I The Cloud Malers IX IS 1 2
number experiences			11 11 1 . 11
Onc, Two	IX	10	• •
Sing a Song of Sixpence	iΧ	20	(c) Children and Pictures by
Bir Bir Blick Sheep	I.	14	Jein Betrner NI
I we I title Sisters	17	25	(D) Tre-child has runger process and
A Ship A Stilling	IX	-	greater de ire for the tribit him is a
The Three Bears	IX	56	realize and recent c
The Three Little Pigs	IX	40	The mother condend the court on 1 min,
The Three I ittle Kittens	17	171	adit ament from force for the
Twenty I roogles	IZ	154	to the relicion to the said
Dame Duck's Lesson to He			stories the cold have I see to the
Ducklings	17	155	stories in line

(a) True Stories and Stories that True	Coul	d be
	OLUME	PAGE
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(E) The child has a natural appre	ciatio	n for

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(E) The child has a natural appre	ciatioi	n for	•		_			
beauty in art and in Nature								
To keep alive and preserve this natura	alappi	геста-						
tion, the child needs to hear again an								
best stories in literature, to listen	to the	best						

(a) Pictures for art appreciation			
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Children, by Renoir	V	Ο	301
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music, to look at pictures by the masters, to come in contact with Nature through first-hand observation and experiences and through pictures, poems, and stories about Nature



Courtesy Blackie & Son, London

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Mother and Child, by Cossatt

Ruth and the Wonderful Spin-

A Funny Gentleman and What

appreciation The Little Artist (Poem)

ners (Story)

Stories)

(Pictures)

and Stones)

(Diction)

He Said (Story)

Tree on the Hill (verse)

Animal Pictures (Picture)

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Pets (Pictures and Stories)

Story of an Incubator Chicken

Flowers and Trees (Pictures and

Butterflies, Moths, and Insects

Animals (Pictures and Stories)

Birds (Pictures and Stories)

Fishes, Frogs, Reptiles (Pictures

The Grand Canyon of Colorado

(b) Pictures, poems, and stories for Nature

- (r) The child enjoys making up original stories
  - (a) The mother should not forget to include in the story hour some stories of the cluld so in activity. He likes to hear the story of his own day. For example, it may be something his this. Once upon a time a little boy named Bobby got up one morning and put on his blue suit. After he had eaten his breakfast of orange juice, cereal, and milk he run to find Towser, his white woolly dog. Towser slept in the toy-boy under the window.
    - "Good morning, Towser," said Bobby
    - "Bow-wow," answered Towser, for that was his way of talking. He was glad to see Bobby, etc
  - (b) The child also likes to hear true stories of his pets, his playmates, and little children of other lands. By putting the facts of everyday life into this attractive form, the mother may give the child much useful information, and at the same time help him to become adjusted to his environment.

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(c) The child may be encouraged to tell original storics suggested by pictures

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Tive Little Sisters		•	The Kittens at School	17	Opp 151
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#### SENSE-TRAINING

What a child gets out of life depends on how much he is taught to observe during the pre-school years. The little child comes into a new, big, strange world and his only way of becoming acquimited is through the senses. The child, trained to observe, sees, hears, and feels so much more than the children who are not trained to observe, so he naturally becomes the leader.

(A) For the information of mother

(a) The Tive Senses	X	181	(f) Our Servant Γiste	Z	216
(b) In Nature's Eye Factory	$\mathbf{X}$	183	(g) Sense of Balance	`	201
(c) The Human Lye	X	196	(h) Sense of Touch	`	215
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Telephone Business	$\mathbf{X}$	205	(j) Pain Sense	\	210
(e) Our Servant Smell	7	211	(1) Temperature Sense	\	~10

(B) Eye-training By teaching the child to look for differences in color size and shape of objects for differences in birds, animals, flowers, trees, etc. his powers of observation are developed

(a) In addition to the color experiences in the child's
surroundings, as red dress, green coat, bro n shoes
and blue drapes, the child may gain distinct color
ideas by naming the colors in the following pictures

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American Butterflies	III	Opp 382
Spectrum	I	Opp 102

Stories and verses with color su.	בבו לו יחה	
Little Boy Bli c	IX.	1.,
Little Red Riding Hood	I.	4.
The Little Red Hen	11	77
Rost Apples	IX	101
The Small	IX	107
The Dars	IN	7
The Dardchon	IX.	1 7
The Inside SI 21	11	125

(b) To supplement the child and a conformation of the principal strains of the principal strains

Come Little Leives IN

	VOLUME	PAGE	volu	ME PAGE
The Earth and Moon (Pic-	_		Sizes of Animals (Silhouettes) IX	C 208
ture) I Beaks and Bills as Nature's	Opp	19	The Three Bears (Story) D	36
Tools (Picture) X	Opp	168	Jack and the Beanstalk	
Ten Members of the Rodent			(Story)	55
Family (Picture) X	Opp	266	(c) Things to look for in Nature II	I 4-2I

(C) Ear-training One way to make the child conscious of sound is to build up the habit of listening. The country child has an opportunity to listen to the songs of birds and the cries of animals. While still very young he can learn to recognize and locate the bird by its song and the animal by its cry. There are also sounds familiar to his home and community, the electric car, the carts, the auto horns, the farm machines, and so on

The city child has a more difficult task, for sounds are blended into one big roar However, if properly directed, he soon learns to pick out and locate the different sounds. The mother can call attention to the interesting sounds of footsteps, bells, whistles, and the rush and roar of street cars

(a) Imitating familiar sounds			"Pitter, Patter!" says the Rain	IX	180
Baa, Baa, Black Sheep	$\mathbf{I}\mathbf{X}$	14	"Purr-r!" says the Kitten	$\mathbf{I}\mathbf{X}$	151
"Bow, Wow!" says the Dog	IX	119	"Quack, Quack!" says the Duck	IX	22
"Caw, Caw!" says the Crow	$\mathbf{I}\mathbf{X}$	120	"Squeak!" goes the Rat	$\mathbf{I}\mathbf{X}$	150
"Cluck, Cluck!" says the Hen	$\mathbf{I}\mathbf{X}$	120	"To whit! To whit! To whee!"		•
"Coo, Coo!" says the Turtle Dove	$\mathbf{I}\mathbf{X}$	119	says the Bird	$\mathbf{I}\mathbf{X}$	119
Ding Dong Bell	$\mathbf{I}\mathbf{X}$	13	"To-whu!" says the Owl	$\mathbf{I}\mathbf{X}$	150
"Gobble, Gobble!" says the			"Wunk, Wunk" says the Pig	$\mathbf{I}\mathbf{X}$	29
Turkey	IX	28	(b) Things to listen for in Nature	III	22-27
"Hark, Hark" the Dogs Bark	$\mathbf{I}\mathbf{X}$	22	Bird Calls III	Aft	er 362
"Me-ow!" says the Cat	IX	151	(c) Instruments to listen for over the		
"Moo!" says the Cow	$\mathbf{I}\mathbf{X}$	150	radio (for information of mother)	V 20	50-267

(D) Hand-training Hand-training develops the finger muscles and helps the child to become a doer The purpose of handwork for the little child is not the finished product, but is a means of self-expression, a development of eye and hand coordination, a training in observation, concentration, and resourcefulness, and a development of skills for use in future activities

The very young child delights in scribbling and if encouraged and given a suggestion now and then, his ideas will take form. For instance, if the child is drawing a potato, the mother might ask where are the eyes and eyebrows, thus encouraging him to observe and providing a motive for his activity.

A child loves to cut and with a few suggestions he learns to cut many interesting things. While the things he cuts may not have a permanent value, he has a chance to feel the satisfaction that comes from learning the use of a new tool, blunt scissors, and from gaining a new power, cutting. In trying to cut on a line, he learns to observe and to concentrate, thus getting practice in the use of two important traits. Cutting also strengthens the muscles of his hand and fingers

Clay modeling, playing with mud and other plastic materials, as wall-paper cleaner and dough, has a great fascination for the little child. The wise mother dresses the child appropriately for these play experiences and helps to establish correct personal habits by having him clean up and put away his things after the play is over. The following recipe makes a white clean clay. Two parts salt, one part flour, water to make thin paste, cook till thick like fudge, keep in tin can when not in use.

	VOLUME	PAGE		١.	EF FICE
Drawing with crayons (suggesti	ons		Pasting paper objects	on card	
for mother)	<b>1</b> I	393	board	I	
Tearing paper	IX	37I	Clay Modeling	11 ,7	. 11
Cutting paper silhouettes	IX	274	17		17, • •
Cutting from pattern	IX	2S1	Puppets of cardboard or pins		s <b>s</b> , s
Mal ing Christmas chains	IX	279	•		, -
Making paper snowflal es	IX	27Š	Making simple toys of	ood 1	I i
Making Valentines	IX	280	Simple we ivin	1	I , ~

#### SPEECH HABITS

When the child is beginning to talk, the mother should see that he forms no bid hibits of speech. She must remember that although speech is imitation, yet often in his carly efforts to imit ite those about him, the child substitutes one sound for another. It may be that he says 'wide' for "ride thus confusing the "w" sound with the "r" sound. Perhaps he says "musver" or "mudder for mother, in this case substituting "v" or "d" for the voiced "th" sound. He may use "t" for "s" "l" for "t," "m" for "n," "f" for "th," "t" for "k," or make any number of other substitutions. The result is known as baby talk, the sound of which is often sweet to the doting parent. The mother should not forget, however, that she is allowing the child to build up bid habits of speech which may last him through life, or at least be difficult to correct when he goes to school, where he may have the ridicule of his comrades. A little effort on the part of the mother in these first years generally prevents later unhappiness for both parents and child

The following exercises, which are suggestive only, begin with what the mother has always done—the imitation of the sounds of the cries of animals. Now it is time for us to help the child to distinguish and imitate the sounds of the city as well as the sounds of the country with which many children are not familiar. When repeating the Mother Goose rhymes to the child, as suggested in the outline, the mother should take great care to pronounce the consonant sounds distinctly. Do not allow him to say, "dere was a 'ittle dirl who had a wittel turl." If the adult says the words slowly and distinctly, the baby will do the same

For practice on the "b" sound, for example, turn to the rhymcs listed under 'b, ' for verse having "r" sounds, use the "r" list below

(A) Imitation of sounds in the child's env	ironment	Betty Blue	17	16
The lamb says baa, baa	nonnene	Ban, Ban, Black Sheep	iN	8 44
The cow says moo, moo		Hark, Hark	Íλ	2.
				• •
The pig says wee, wec		(c) (1 sound)		
The chicken says, chip, chip		Clap H nds	17	7
The frog says peep, peep		Pat a-cale	17	7
The yellow bird says sweet, sweet.		Curly Locks	IX	17
The dog says bow, wow		Pussy Cat	1/	21
The horse goes trot, trot		(d)		
The little hammer goes tap, tap		Ding Dong Bell	17	2,
The big hammer goes clang, clang	Dust	iX.	17	
The church bells go ding, dong, kling,	The Dardelion	iN	117	
The airplane says zoom m m		- <del>-</del> · · ·		• 1
The door bell says buzz z z		(f)		
The motor boat goes putter, putter		For Florers that Islam	I.	5
(B) Repeating with an adult simple verse	contain-	Little Bo-Peep	IX	5
ing sounds often mispronounced by the		Linde Mr - Mullet	15	6
	itt vogitë	See Sav	17	9
child		(g)		
(b)		The Steps Sons	IX.	
,	20	Good Morring	iN	د
Little Bo Peep I	_		17	C+
Little Boy Blue	14	Gras Fighwir Grain	1,	-4

	\ OLUME	PACE			
(h)	VOLUME	INGL	Jack Sprat		F PAGE
Here Sits the Lord Mayor	IX	7	The Queen of Hearts	IX	14
Clap Hands	ΪX	7	The Queen of Healts	IX	17
Warm, Hands	IX	7	(th)		
Here's the Church	IX	7	Dance, Thumbkin	IX	
The Queen of Hearts	IX	17	This Little Pig	IX	8
Hark, Hark	$\mathbf{IX}$	22	The North Wind	IX	7 21
Little Jack Horner	$\mathbf{IX}$	13	Curly Locks	IX	17
			Little Jack Horner	ΪX	13
(1)					^3
Jack Spratt	IX	14	(ng)		
Jack and Jill	IX	13	Father, We Thank Thee	IX	5
Jack, Be Nimble	IX	13	Sing a Song of Sixpence	IX	20
Jack a Nory	$\mathbf{I}\mathbf{X}$	12	Ding Dong Bell	$\mathbf{IX}$	13
Little Jack Horner	IX	13			
<b>a</b> >			(v)		
(1)			The Sleepy Song	IX	3
This Little Pig	IX	7	Mistress Mary	IX	16
Pease Porridge Hot	IX	8	Hark! Hark!	IX	22
Mary and Her Lamb	IX	15	Counting Out Rhyme	IX	10
I'll Tell You a Story	IX	12			
			(n)		
(m)			Bed in Summer	$\mathbf{I}\mathbf{X}$	2
To Market	IX	8	Warm, Hands	$\mathbf{IX}$	7
Little Miss Muffett	IX	16	The Old Woman	IX	12
Mistress Mary	IX	16	Wee Willie Winkie	IX	3
The Man in the Moon	IX	20	Wonderful World	$\mathbf{IX}$	113
One Misty, Moisty Morning	IX	2 I	(-1)		
( )			(up)		
(n)			Pussy-Cat	ΙX	21
Jack a Nory	IX	12	Who Has Seen the Wind?	IX	24
The North Wind	IX	21	What Are Little Boys Made Of?	IX	12
(-)			(sh)		
(p)				IX	_
Clap Hands	$\overline{IX}$	7	The Sleepy Song	IX	3 16
Pease Porridge Hot	IX	8	Little Betty Blue The Old Woman	IX	10
This Little Pig	IX	7	Baa, Baa, Black Sheep	IX	14
Tom, Tom	IX	14	A Ship A-Sailing	IX	22
Polly and Sukey	IX	21	A Ship A-Saming	121	2.2
Little Bo-Peep	IX	16	(C) Listening to stories with repetition	n or re	efram
Rosy Apples	IX	101	containing speech sounds diffic	ult for	r the
(r)			young child		
Rock-a-Bye, Baby	737	•	The Three Little Pigs	$\mathbf{I}\mathbf{X}$	40
Ring-a-Ring 1-Roses	IX	6	The Old Woman and Her Sypence	$\mathbf{I}\mathbf{X}$	42
Rain	IX	10	The Story of Chicken-Licken	IX	46
The North Wind	IX	24	The Little Red Hen	IX	74
This Is the Way	$_{ m IX}$	21	A V <sub>1S1</sub> t to the Γarm	IX	28-30
ind is the trat	147	9	NOTE The child will soon join in or		
(s)			or repeat the unusual wor		ciiaiii
The Sleepy Song	IX	•	of repeat the unusual work	40	
Simple Simon	ΪΧ	3	(D) Singing songs containing troubles	ome s	peech
Sing a Song of Sixpence	IX	15 20	sounds	,	_
See Saw	IX	9	Little Bo-Peep (l, t, sh, th)	ΙX	231
Polly and Sukey	IX	21	Jack and Jill (f, J, p, w)	IX	231
Ship A-Sailing	ΪΧ	22	Mulberry Bush (h, r, b, ng)	IX	232
_			Round and Round the Village (g, r		J
(t)			v)	IX	233
Tom, Tom	IX	14	Polly Put the Kettle On (p,k,t s)	IX	235
Little Bo-Peep	IX	16	Brave (b, g, t)	IX	248

#### VALUE OF PLAY IN THE CHILD'S LIFE

Play is the child's chief business in life. He learns more through play than any other as. His play helps him to become adjusted to his surroundings and may lay the foundation for his future life work.

(1) Games for the child to p	Joremi Jan	ricr	(B) Riddles and vord plays	1: 1	rt
(1) Games for the clind to p	114		•		
(a) Baby plays	IX	7-9	(a) Riddles	17	٥
(b) Imitative games			(b) Word Plays		
Keeping store	I.	369	Peter Piper	-1	1 -
Imitating toys	17	370	As I Walked by My elt	11	17
Imitating inimals	IX	570	The Man in the Wilderne s	18	11
Imitating activities	17	570	As I was Loing Mon.	IX.	31 1
Imitating simple storics	II	370	The Apple Pic	11	1'
I Saw	1.7	370	Where?	17	1 1
(c) Games involving motor	r ictivity		If—	17	14
Follow the Leader	IZ.	370	(c) Suggested Activit		
Pease Porridge Hot	IΝ	370	Encourage the child to make the	ru <sup>1</sup> le	31-0-12
Blowing Bubbles	IZ.	370	familiar objects		
Bean Bag Games	IZ	370	Example I m thinking of so t	din di	21125
(d) Rainy day games			four less and no head. What		
Tearing paper	IZ	371	(C) Outdoor games		
Guessing	IX	37 I	(a) Marbles	11	
Hiding	1/Z	371	(b) Tops	11	-1-
(e) Singing Games	IX 10 12, 23		(c) Indian War Games	۱۱	10

#### DRAMATIC PLAY

The little child is an actor. He delights in playing at make-believe. Sometimes this dramatic play is entirely the product of his own imagination, sometimes he delights in acting the verses and stories which mother has read or told to him. Story pictures are also a great stimulus to this type of play. In this dramatic play the mother should make no attempt to force the child or insist on a repetition of the activity. It must be the result of his own spontaneous desire.

(A) Stories to play			Sing a Song of Sixpence	I.	20
The Cat and the Mouse	$\Gamma Z$	35	Jack Be Simble	17	
The Three Bears	IZ	36	The Old Woman	IZ	1 7
The Three Little Pigs	IX	40	Mary and Her I amb	17	1-
Little Red Riding Hood	IX	44	Little Jack Horrer	17	
The Story of Chicken Licken	IX	46	Wee Willie Winkie	17	,
The Elves and the Shoemaker	IZ	48	The Three I ittle Kittens	17	
Hans' New Skis	17	70	The Night Before Chri	17	11
The Little Red Hen	IX	74	(C) Story pictures to p'ay		
When My Lady Spring Comes	IX	115	One Day at Dayid's H a	17	ς
The Anxious Leaf	IX	1-5	I ars and I isa	ix	ς
(B) Verses to play			Boy Bloving Soap B 1 9 5	17	<b>、~</b>
Little Bo-Peep	17	16	Mother Hubbard and her De-	11	
Little Boy Blue	IX		Shi tilicock Party	11	-
Simple Simon	I.	14 15	All the Days of the Weel	17	7
Jack and Jill	17	I <sub>3</sub>	(D) Simple pupper store	- IX - :	:/5

#### SOCIAL EXPERIENCES

Learning to get along with others is a very important adjustment in which every lit to class needs help. Naturally, at first, everything is done for the buby's comforcing pleasure. His longer

centers about himself It is "my mother," "my daddy," "my toy" So long as he is the center of attention, when everything is done to carry out his desires, he is happy

But the wise mother soon realizes that her child's happiness and success in later years can come only through his learning to share, co-operate, and get along with others. He must learn to become a co-operative member of the family, working in harmony with those older and younger than himself, and growing in consideration for the feelings and wishes of others. He must learn to play with companions of his own age. The following suggestions will serve as a guide to an interested mother.

- (A) Helping the child to make his ideas clear through speech (See IV—Speech Habits—in this outline)
- (B) Teaching him to listen to what others read
- (C) Teaching him to listen to what others say

	·	/ OLUME	PAGE
(D)	Singing with others	IX	231
(E)	Playing with others	IX	369
(F)	Making things with others	IX	259

- (G) Sharing things with others
- (H) Taking care of his own needs getting up, dressing, putting away things
- (I) Respecting property of others—playthings, tools, clothes, etc
- (J) Caring for younger brother or sister

(K) Caring for pets	IX	38 <b>1</b>
(L) Grung Parties	$\Gamma T$	270

Permitting the child to entertain little playmates and to give simple parties helps him to develop thoughtfulness for others, generosity, and hospitality

(a)	The child's idea of a party	IX	373

(b) Planning the party

Invitations These may be planned by the mother and child, the mother writing them and the child drawing appropriate pictures with his crayons

	I OLUME	PAGE
(c) Kinds of parties		
(a) A Clothespin Party	IX	374
(b) A Before Christmas Party	IX	374
(c) A Soap-Bubble Party	IX	374
(d) The refreshments	$\mathbf{I}\mathbf{X}$	373

(e) Birthdays and holidays should always be celebrated Let the child help in the planning and in the carrying out of small details

#### For information of mother

A New Year's Party	VI	280
Valentine Party	VI	281
April Fool's Party	VI	282
Easter Party	VI	284
May Day Party	ΙΙ	285
Fourth of July Party	VI	286
Halloween Party	VI	287
Thanksgiving Party	VI	288
Christmas Party	VI	290



Courtesy Blackie & Son, London

# CHARACTER DEVELOPMENT

The forming of right habits is more than half of life's battle. The mother who starts her baby on a schedule for such routine matters as getting up, getting dressed promptly, eating, hanging up clothes on low hooks, putting away toys after play, going to bed by the clock, develops in her child valuable habits of regularity, punctuality, and orderliness. Such a schedule gives mother more time for herself—time in which to enjoy herself and to prepare herself to become a better mother.

## (A) Character development through stories

Just how far stories affect conduct cannot be definitely determined, but we do know that a truth makes a deeper impression upon a child's mind if it is brought out in story form. He readily grasps the truth without having the moral tacked on. For the use of the mother who wishes to know the stories which illustrate certain character truts, the following outline will be helpful

cibri				• 4		
(a)	Value of purpose storics (for information of mother)	IX	173	Imagination Buyard Laylor	,	*4.1
<b>(</b> b)	Purpose stories and verses illus trating certain character traits			Lucy Larcom Industry	1	( -
	Ambition			The Ant and the Criclet	11	70
	Dick Whittington and His Cat	v	40	The Queen Bee	17	111
	Hans Christian Andersen	i	361	How to Get Breakfist	1/	150
	Robert Louis Stevenson	i	367	Hans Christian Andersen	1	15%
	Charles Dickens	i	377	Kate Greenawas Jane and Ann I wolor	``	
	Cheerfulness and Happiness		0	Jane Porter	ì	;
	Good Morning	ıχ	104	•	•	,
	A Recipe for a Day	17	172	Initiative and Resourcefulness The Three I ittle Pigs	17	
	Kate Greensway	,,	363	Puss in Boots	1	40
	Lucy Larcom	į	367		, .	4.1
	Cleanliness		5 ,	Obedience [14] and the Beanstall	17	
	I ittle Dame Crump	17.	153	Snow White and Rose Red	1	ί,
	The Cleanest Town in the	1.	153	Sleepy Harry	i\	155
	World	ш	314	The Little Mothers of Japan	VII	356
	Courage and Bravery			Patience, Perseverance Persister	τc	
	Hans Christian Andersen	V	361	Fry Again	17	15,
	A Burmese Boy	νii	311	The Hare and the Tortoise	17	101
	Courtesy, Politeness, Hospit ility		J	Nathaniel Hawthorne	1	170
	The Town Mouse and the			Thrift		
	Country Mouse	V	2	The Ant and the Grasshopper	1	,
	Chinese Children	VII	311	The Ant and the Cricket	17	150
	Hospitable Hollanders	117	316	Truthfulness and Honesty		
	A Story of Testival Days 11		Ū	The Neel lice of Truth	17	17-
	Spun	111	325	The Elves and the Slocmal cr	i\	1,1
	Friendliness, Helpfulness, I ind-			Unselfishness		
	ness			Cinderella	IX	54
	The Pasture	IX	104	Little One I ve I ittle Tvo-		2.
	The I ion and the Mouse	IX	174	Ives, and Little Three-		
	The Boy Who Saved His			lves	IX	٤,
	Country	111	717	How the Sun, the Moon and		
		⊾ 204 \	26	the Wind Went Out to		
	Song for a Little House Maria Mitchell	, <sub>111</sub>		Dinner	17	75
	William Makepeace Thackers	ï	362 366	(c) Bible Stories		
	John Ruskin	,	368	The Lirst Christians	$\Gamma$	ς
	Sir Joshua Reynolds	i	369	The Boy Jest's	ix	*0
	Florence Nightingale	Ň	373	The Paralle of the So co	$\mathbf{N}$	5

# (B) Character development through activities and hobbies

Activity is the first indication of mind consciousness in a baby. He is alert and eager to see hear, taste, touch, handle everything about him. Soon he vants to do things—to tall sing dance, draw, paint, model, cut, build, create. It first he does everything for the tun of doing is. He scribbles for the fun of scribbling he pounds for the fun of pounding and so on. His vortex centers about himself and his pleasure.

Before he starts to school his world should be widered to include owners. He should be en

couraged to do things with others and for others By suggesting that he draw a picture for grandma, make a simple toy for a little friend's birthday, collect picture cards for sick children in the hospital, mother not only supplies a motive for the activity but also awakens interests which may develop into some worthwhile hobby

Purposeful activities, not words, develop character When the child experiences the joy that comes from giving, he naturally grows into unselfishness, helpfulness, and consideration for others. When he becomes intent on making a toy for someone he wants to do his best, so he unconsciously concentrates and works on the toy until it is finished, thus learning perseverance. When he starts collecting pictures of dogs, cats, birds, flowers, and butterflies he begins to look for definite things, thus developing his powers of observation.

During the working out of some activity, his interest and curiosity may lead him to ask questions. If his questions are answered definitely, if he is led to books, for instance, to find the difference between a collie dog and a terrier, a moth and a butterfly, if he is encouraged to search for pictures that are unusual, if he is shown how to mount his pictures, he may be started on some hobby which develops observation, concentration, perseverance, stimulates thinking and reasoning, as well as provides real fun

Pre-school activities which may lead to the development of a worthwhile hobby

I OLUME PAGE	VOLUME PAGE
(a) Paper craft, making all sorts of	Pictures and names of
things from paper IX 274	children of other lands VII 309-398
(b) Cardboard box tovs IX 2S1	(f) Collecting things
(a) CI 1.1	Pretty stones I 191
0,,	Butterflies and moths III 377
(d) Simple puppet-making IX 210, 268	Leaves III 383
(e) Scrapbook-making	(g) Singing IX 231
Pictures and names of com-	(h) Acrobatic playing IX 223
mon birds III 295-362	(1) Sky gazing and finding
Pictures and names of	Pole Star I 52
common flowers III 53-110	Big Dipper I 52
Pictures and names of	Great Bear I 53
common trees III 111-118	Mars, Red Planet I 35
Pictures and names of	Venus, Evening Star I 34
common animals III 146-236	Vega, brightest star in the
Pictures and names of	northern sky I 54
common dogs IX 386-394	Milky Way I 55
Pictures and names of	(1) Numerous other activity sugges-
common cats IX 384-385	tions IX 376
V 10 V	

#### TRAINING IN DECISION

Teaching the child to make wise decisions is training him for success. Time wasted by hesitation and failures caused by indecision surely convinces the thoughtful mother that training in decision must start early.

# (A) Decisions in everyday experiences

Let the child decide which cap he wants to wear, what toy he wants to play with, whether he wants to play or go with daddy, which story he wants to hear, which picture he prefers, etc

# (B) Decisions in choice of pictures

Of the two pictures on page 4 of Volume IX, have him decide which one he likes the better. The following are a few similar suggestive examples. There are many others throughout the various volumes.

	1 OLU PF	PACI		•	
(a) The I arly Bird or Mr			(d) Kitters at Sel mit or		
Bunny and His Wife	1X Opp 159	3 176	A Increst	INDO	1
(b) Which litten?	17 Opt	) 151	(e) Nool and Cail or or		
(c) The Duck or Rooster?	1.Z Obl	176	Getting Acquimted	1	. > >

## STIMULATING THE CHILD TO THINK

"What's that?" is usually baby's first question. When he points to an object, such as a lard or a flower and asks, "What's that?", if mother names the object definitely as robin or bluebird, or ross or violet, and adds some point of interest about that particular object, she is not only enlarging his vocabulary but she is also awakening his interests and helping him to see likewise and differences in objects.

By teaching the child to make comparisons, to look for differences and to link up our subject with another, mother is stimulating the child to think. For it is the mental process of trying to place facts where they belong that trains the mind to think

Words mean nothing to a child unless he has images of the objects represented by vorces. Therefore, pictures tell their own story

In Volume IV pages 83 96 are 8 Pictures" These pictures awake interest and suggest many question	n the	child s	The Cloud Makers What are clouds? What makes clouds white and	I	1,61
Where do oranges grow?	II	327 329	black?	I	10
Where does lumber come from? Where does the squirrel live? How can I make an airplane?	III III	202 173 345 540	A Lunny Gentlem in The sound made by frozs How the trop gets a new sont	IX ]]] ]]]	,
By inswering the questions a mother further interest and thinking	r can st	imulate	The I rog and the Ox (I ble) The I rogs Desiring a King	\	•
Pictures to stimulate thinking with lated material to aid mother in			(Lible) The Hires and the Frons	ĭ	
child's questions. Additional mate found by consulting the Index in Ve	tend :	may be	(I able)	17	15.7
The Snow Makers What is snow? Why is snow beautiful? Snowflakes cut from paper	I I //	126 127 88 85 278	White Polar bear and Eule How the bears to b What the bears cet Kinds of bears	111 111 111	-
The Rain Makers What is rain? Rain (Song) City Rain Little Raindrops (Poem)		1.0-121 \$8 .51 107 180	The Three Bears (Story)  Jimmie the Black Bear Cub  (Story)  The Totelloss rache bea  (Lable	1X 1	
The Wind Gatherers Why does the wind blow? Hush a bye Baby (Verse) The North Wind (Verse) Mr. Wind and Midam Rain (Story)	IX IX I	1-4 125 00 5 21	The Areae Lox  Kinds of foxes  Lox choses  The Lox and the Chellat  The Lex and the Loy (Lot)	/ !!! !!!	1
The Leaf Makers What makes the leaf green? Why do leaves change color The Anxious Leaf (Story) Come, Little Leaves (Poem)	I/ / / /	1,2 1,1 50 1,5 1,5 1,5	The love of length 1. It beloves the Cross of 12. The lovest and the Cross of 12. The lovest and the Cross of	1	

The Kittens at School	OLUME IX (	P1GE Opp 151	GI OI	LUME IX	PAGE
Kinds of cats	$\mathbf{I}\mathbf{X}$	384	The Feast of the Dragon Boats		391 323
Members of the cat family		209-212	A Ride in Japan	IX	221
The Three Kittens (Verse)	IX	151	The Joyous Little Children of		
Persian Kittens	IX	381	<b>~</b>	VII	353
The Cat and the Mouse (Story)	IX	35	Top Fights	VII	354
A Chinese Panda	IX	135	Japanese Kindergarten (Pic-		33 <del>4</del>
Pelingese	IX	390, 392		VЦ	361

## GUIDING THE CHILD'S READING EXPERIENCES

It is generally assumed that the child will learn to read when he starts to school. However, there are many experiences which he may have at four, five, and six years of age in the home where a wise mother, who understands her child's needs, may guide him into becoming a more successful and happy young reader. In a home where the child sees mother and daddy read, where he has observed mother go to books to find the answers to his questions, where he hears older brothers or sisters talk about reading, where he has enjoyed many happy hours himself "reading" pictures, he naturally becomes reading conscious and, by the time he is ready for school, he is eager to learn to read. While it is unwise to push the child into reading too young, yet when he points to a word in a newspaper or book, under a picture, on a label or sign, and asks what it says, it is wise to answer his questions definitely. By giving him a satisfactory answer to his many perfectly natural questions that arise around situations in which reading plays a part, he grows into reading naturally and happily

The following suggestions may prove helpful

(A) For information of mother		
	VOLUME	PAGE
Children's Reading (with book	k.	
lists) by Bertha E Mahony	$\mathbf{X}\mathbf{I}$	284
Adventuring Among Books, by	}	
Alice M Jordan	$\mathbf{X}$	294
Reading in School and at Home	·,	
by William S. Gray	XI	210
The Role of Curiosity in t	he	_
Development of Purposefu	ıl	
Reading, by Laura Zirbes	XI	208
Social Studies and Reading, by	v	
Elma A Neal	XI	38
(B) Helping the child		3-
(a) By reading in his presence		

- (a) By reading in his presence
- (b) By going to books for answers to his questions
- (c) By reading to him
- (d) By having him point out favorite words in the story

- (e) By having him pick out his name
- (f) By helping him to handle books for the purpose of
  - (1) Seeing the pictures
  - (2) Finding the back, the front, and turning the right side up
  - (3) Finding in the book the picture, the the story or the rhyme he wants by some cue which he finds for himself
  - (4) Playing that he is reading letters, books, newspapers, magazines
- (g) By noticing street signs, ads, addresses on packages and letters, telephone numbers
- (h) By helping him to write or print his name when he wants to do so
- (1) By creating the right attitude towards books
- (1) By teaching the proper care of books

# ANSWERING THE CHILD'S QUESTIONS

Understanding on the part of the mother and the child's confidence in the mother are as essential to the child's mental growth and emotional development as pure milk and fresh air are to his physical growth. This bond of understanding and confidence starts in babyhood, when mother takes the pains to answer the child's questions correctly. When a child asks a question his mind is ready for a correct, not necessarily a detailed answer. The mother, too busy to be

bothered with these little questions, will not have a chance to answer his more important questions later on. He will go to some one else who "knows and understands. The following are just a few typical child questions answered in The New Wonder World."

	\ thr	Tt T
Why do we have day and night?	I	7
How far away is the sun?	I	1 \$
Why can't we see stars in the daytime?	I	15
What is the "man in the moon"	I	
Do people live on Mars?	I	3(1
Where is the Great Bear in the sky?	I	٠,
What is air?	I	7
What are clouds?	I	ζ,
What makes it rain?	I	49
What makes it snow?	I	44
What is ice?	I	44
What makes the wind blow?	1	60
What makes it hot and cold?	Ţ	97
Why is the sky blue?	I	100
What is the rainbow?	I	10)
What makes it thunder?	I	111
What is lightning?	I	111
What is a sponge?	I	-17
Why do we have money?	11	175
Where do we get coal?	11	181
What is paper made of?	11	205
What is cellophane?	II	20%
What are matches made of?	II	.1.
What is rubber?	II	215
What is pasteurized milk?	11	205
How is cheese made?	11	30,
Where do oranges come from?	11	327
How does a spider spin its web?	III	141
Where do birds go in winter?	III ,6,	X 280
How can a fly walk on the ceiling?	111	304
Do animals cry?	Z	10-
Do plants sleep?	Z	253
How can a monkey hang by his tail?	Z	-75
What makes the heart best?	Z	, ,
What makes blood red?	Z	324
Where does food go when you eat?	X	344

# MOTHER'S SELF-TEST

Frequently the conscientious mother asks herself if she is doing just the best thing for her child and if she is laving the right foundation for his success and happiness. Valuable help is given by educational authorities in Volume XI in their answers to the following questions.

What can mother do to prepare the child for school?

Teach him to read and write?

Develop his initiative and self-reliance?

Do nothing about it?

	/OLUME	PAGE
What is the best method of disciplining the child? Use punishment? Allow him freedom?	XI	2
Develop his self-control? Who was the pioneer of the activity school? Froebel?	XI	6
Dewey? Pestalozzi?	377	
Where is the emphasis placed in modern schools today? On grades? On learning? On living?	XI	II
What should a child have learned by age of six? What routine habits? Size of vocabulary?	XI	22
What character traits developed?  What influence has the greatest effect upon the child's personality?  Playmates?  Parents?	XI	23
What is the primary aim of the modern school?  Teach subjects?  Develop the child?	XI	25
Follow the course of study?  What has the greatest effect upon the child's health?  What he knows?	XI	27
What he thinks? What he does? What is the best method of character training?	XI	28
Talking or preaching? Activities? Separate course?		
What are the methods of modern schools? Force child to study? Make child conform to needs of group?	XI	34
Create desires and awaken interests in variety of subjects?  What should be attitude of parents toward books?  Think text books sufficient?	XI	37
Buy books suited to child s interest and vocabulary?  Expect child to depend upon library?	~~~	
How should child a questions be handled?  Ignore them?  Answer them?  Provide material to help him find his arrange?	XI	42
Provide material to help him find his answer?  What is the purpose of tests in modern school?  To find child's grades?  To diagnose his difficulties?	XI	47
To compare him with others?		

# MOTHERS' OUTLINES

	\$ 1 1	11
When does the child's education begin?	$\Sigma$ I	70
At kindergarten?		•
At school?		
At mother's knee?		
How determine the educative value of reading?	NI	72)
From the child's interest?		
Time spent in reading?		
Amount of reading?		
How to handle the story of Santa Claus?	$\mathbf{Z}$	20+
Explain truthfully?		
Try to make child believe after doubts arise?		
Help child to realize that the thought is eternally true?		
Should the child's dramatic play or desire to act be—	$\mathbf{M}$	200
Encouraged?		
Punished for "showing off"?		
Ignored?		
How may child's mental growth be measured?	$\Sigma$ I	251
Amount of information?		
Unfolding of his personality?		
Should fairy tales be read to the child?	XI	255
No		
Yes		
How may a child be started on the process of self-education?	1.	20_
Give him opportunity for varied experiences?		
Encourage him to play without interference?		
Let him do as he pleases?		

# ARTICLES BY EDUCATIONAL AUTHORITIES

In the face of rapidly changing conditions the mother, who wishes to understand the problemof child growth and development in the light of modern education, will find these articles helpful

Our Work and Play with Children, by Patty S Hill	IZ	26,
The Child, the Family, and Education, by Lois Hayden Meek	IZ	.0
My Child as a Person, by William H. Kilpatrick	ZI	200
Where the Home and School Meet, by Charles L. Spain	ZI	I
Training in Sharing Responsibilities, by Worth McClure	7.1	62
Trends in Modern Education, by Mildred English	7.1	25
The Active Child in the Modern School, by Julia Letheld Hahn	II	41
An Activity School Made Stalwart, by Junius L. Meriam	7.1	ς.
Children's Reading (with book lists), by Bertha E. Mahony	7.1	254
Adventuring Among Books, by Alice M. Jordan	ZI	201



# CHILDREN'S READING

## BY BERTHA E MAHONY

Founder of "The Bookshop for Boys and Girls," Boston, Massachusetts

SOMETIMES a young mother, selecting books for her four-year-old, will pass over the loveliest picture books of Randolph Caldecott, Kate Greenaway, Walter Crane, and Leslie Brooke and all the fine collections of nursery tales, saying again and again that whether the books are picture or story she wants them to be "educational" She will say, too, that as a child she never cared for fairy tales and does not want her son "to waste his time with them"

This point of view is not unusual even among university mothers. It is an expression of the idea that mental growth is a matter of acquiring information, and that a child's mind is an empty cup to be filled by the process of education. Actually the growth is not mental alone but mental and spiritual, and the process of education—to the writer's way of thinking—is the process by which a personality is helped to unfold and develop to the full its natural capacities.

Every fine book whether picture, fairy tale, true story, or poetry is "educational" in a far truer sense than an informational volume made without imagination or genius So many of our greatest values cannot be seen, handled or measured The educating power of a fine book is one of those values, - intangible, imponderable. It lies partly perhaps in the never ending lure of work of the imagination One looks at a picture book again and again always seeing new points or new beauty. One reads a tale over and over, finding new meanings A line of poetry or a verse from the Bible is sometimes treasured for years from childhood into maturity when at last the full meaning stands clear This process, hard to describe though it is, which applies to all that a child sees in the world about him, or hears or feels, is wonderfully described by Walt Whitman in his poem "There was a child went forth"

> The horizon's edge, the flying sea crow the fragrance of salt mar h and shore mud

These became part of that child who went forth every day and who now goes, and will always go forth every day?

The power of words is so great Think of our reactions to certain word combinations

"Though the moth wings of the twilight in their purples are unfurled'

'And the land of vouth lies gleaming flushed with rainbow light and mirth And the old enchantment lingers in the honey heart of earth

Who can say just why these lines stir us? This capacity for reacting with the spirit to particular combinations of words is primeval. It is a natural capacity and because we have it, the poet exists. Poets, painters, composers have a genius for seeing, hearing, understanding and for making us see and know what without them we should never see or know.

In the very ancient times literature was made by being spoken. It is a pity that there is not more opportunity in this day to hear the beautiful spoken word. Those who still go to church regularly hear the thought-filled words of the Bible.

"I will lift up mine eyes to the hills from whence cometh my strength"

"The Lord is my shepherd I shall not want He maketh me to he down in green pastures He leadeth me beside the still waters He restoreth my soul He leadeth me in the paths of righteousness for His name's sake"

These are grand words to have echoing and re-echoing in the mind and ringing bells in the spirit

Parents and teachers should see to it that little children have plenty of opportunity to hear poems and tales and stories spoken or read aloud. Before a baby is a year old his sense of rhythm is stirred and his ear attuned to words through the nursery rhymes chanted to him. And that child is fortunate who at the same early age is allowed to hear songs and poetry and beautiful simple prose spoken.

A little later it is worth while to take pains to choose the finest versions of old tales and of much-translated people like Hans Andersen and Grimm. And those who are sufficiently interested to learn beautiful things to speak to their children will find in this art joyful and enriching reward. Many things in the literature of childhood gain tremendously by being spoken. This is particularly true, for example, of Selma Lagerlof's "The Wonderful Adventures of Nils." There is grandeur and beauty in this book which a child reading to himself cannot fully appreciate. But if he hears it read aloud well at first and then later reads it to himself, the book fulfils itself within him.

All these values will count for little if a child has no leisure or quiet time, no time to be alone I wish every mother and teacher might be required to read John Bowman's "World That Was," and Louis H Sullivan's "Autobiography of an Idea" Some leisure, some quiet and some aloneness are absolutely essential to growth of the spirit Occasionally children realize this themselves and seek the opportunity I knew once a little girl who made it a point to leave the supper table sometime before the family so that she might have the dark sitting-room to She would forego food rather than miss the chance to be alone for a while She went always to a certain window from which she could see the stars, the sky and, half a mile away, the ocean In Dr L P Jacks' volume "Mad Shepherds," "Snarley Bob" whose passion was quietness and the stars said, "What's wanted is to get right on to the edge of the world and then look back That's what the stars teaches you to do, and when you've done it - my word! it turns ver clean inside out!"

In these days of ever-fresh and widening knowledge of science most people will agree that when their eyes rest

upon a sight in the natural world which they believe to be beautiful, there comes a special sensation in the realm of the soul which can only be described as a lifting of the spirit. Most people experience the same lind of 'lift' under the influence of fine thought or emotion beautifully expressed whether in music, painting or words

What we now call "the arts" go back to the very dawn of man's history. Men did not have to be taught to dance, sing, dray, or make stories. They had a natural capacity for all these things. Certain early men had genius in all these ways, and these natural abilities were developed to the point of art and beauty in many different phases of folk ceremony.

So it was with the use of words. Man made stories and poetry and songs long, long before he thought of reading and writing or the making of schools. His life of the spirit, too, was his guide before the existence of churcher or any organized religion. Imaginition, observation wonder, kindness, wisdom, reverence, aspiration,—all those attributes were inherent in people ages ago. Man's best school has always been as it is to day—the school of life. And so the little child finds it. He is ready and eager to know all about everything. Perhaps the time will come when we shall clutter his life less with "schools" and make it easier for him to educate himself in the school of life. At any rate in his process of self education as he can practice it in these days, books are his steadfast friends and helpers.

From the earliest time man has been maling a literature known as "folk literature" Out of this literature have come nursery tales such as "The Sleeping Beauty" "Little Red Riding Hood," "Bluebeard," "Puss in Boots," "The Fairies," "Hop o' My Thumb," "Jack in Beanstalk," "Jack the Giant Killer," "The Three Bears," "The Three Little Pigs," household tales such as the Brothers Grimm gathered from the people in Germany in the late "1700's", such stories as "Briar Rose," "Cinderella," "Snow White and Rose Red"

To folk literature also belong myths legends and epics those stories in which early peoples expressed their ideas of how the world came to be, and also the stories of godand heroes embodying their spiritual aspirations and ideals for the conduct of life. The mythology of Greece of Iceland, of India, of Ireland, and of the American Indian are examples of this type. But nearly every race has had its own creation cycle. All through these tales however far apart geographically or in way of life there run the same truths, the same ideas of nobility truth and kindness, the same recognition of that power within us capable of infinite development but called by different names and perhaps more generally understood under the word "God"

In the past, youths have been bred to lives of bravers and power upon a noble literature. This was true of the American Indians. They did not, indeed have their tales in blocks but passed them on with great exactitude from father to son and also through their priests the medicine men. The Greeks ruised their boys and girls upon a similar literature. So did the people of India, the Polynesians, and the Liskimo peoples.

What is the value of these tales for our children to day? This question is asked over and over again. The value of foll literature generally to children ould seem to be follows - made by simple people in the chiler and c race at belongs naturally to the individed of chall the test originally is spoken stones, and poliched by the telstory tellers through the uses these tal slave so at a of form and vivid dramatic beauty of language. They are the source out of hich all later literature lange They assist the child in his earliest time to there of catch up with the world in which he find hir cli Le before his parents will tell him of the varying of the people in the vorld, the foll tale does it to cont truths are brought to him unforgettally through th The beginnings of detached thought and contemplate a - the beginnings of philosophy in fact been either b tale has distance and perspective in it. thereth c of age - so that the child looks from it back to the line of to day, and from life to morrow back a, un to the old tale, always vith new understanding

As for the stones of mythology and the great temposeles and epics, in these are the spiritual advertures of the race. It is impossible to estimate what they contribute to the pattern of life adopted by a person who has known them well in childhood. I very life to be satisfied must be directed by the spirit and must have consection. Our young people, given halt a chance are just a much concerned with this as yere Sir Launcelot, Kolard or the Gaelie Lionn.

There is no danger that children will fail to understand but there is every danger as borne out by each day's experience that grown ups will not give them the chance to understand enough. Folk literature is the soul stretching exercise for the spirit by means of y high it comes to full growth. Consider the situation of a boy who has had with the stories of ancient Greece with the restellings of it great epics, "The Iliad sand "The Odysses in his we refrom seven to twelve a here—if ever—he comes to the reading of them in the original in high school or in celled. He brings to his study the power of interpretation of all these different ivears with a corresponding growth in himself.

There is too great a tendency in these days to select for children and rule out all things unpleasant from the grovm up standpoint. It is not at all uncommon for a me one to ask for books about the Indians — 'ple sarely als without bloodshed or cruclts. Or for one to say So many of the fairy tales are unpleasant. They first en my child." It is almost a platitude to say that disideen do not bring experience to the interpretation of siones and that often it is the form of the tale and not its conte which fascinates them. This is particulable true of all like "Red Riding Hood". There must be reagled as spiritual food as there is in food for the body. People are still far from god life in their manners and easiem and increasing I no ledge of human in ture is the pickers of growing up Some say I don't like my dila to read fairs tales because they aren't true

But who kno with the struct. Truth charges roll no knowledge, and thing mult be seen from minimizing even to approach a tric were. Let, I em the seems of combine both truth and beauty and to be decreased to poetry. Tolk literature too give middle surrounce of scenery and cultons of other parties. While he child

comes between the years of seven and tourteen to read the fine stories now being published of home and school life in other countries, he rounds out his impression of the common interests of people the world over at the same time that he broadens his horizons. He will wish also to see what people have learned for themselves, what they have dared and suffered as revealed in the various fine self-lives and biographies

All the informational books have been passed over in this chapter because every boy or girl with a real interest will find or can easily be shown his way to such bool s as serve those interests. We are here concerned only with the pleasure reading of books which contribute to spiritual growth and development as all fine books do into whatever category they fall Children are capable of drawing their own conclusions No grown-up could go straighter to the heart of things than a little seven-vear old girl whose mother had been reading aloud Walter de la Mare's "The Three Mulla Mulgars" This is the story of the journey of three little royal monkeys to the monkey kingdom. It is a very beautifully written story of many adventures bravely met and to a grown-up might seem symbolic of the soul's journey through life a modern "Pilgrim's Progress" When the story was finished little Agnes sat thinking it all over "How many hardships "But one does not mind they had," she said finally hardships if they lead you to God"

Children approach books differently It sometimes takes much experiment and careful strategy to open the

field of books to a child Occasionally it is brought about through a truly humorous book, - the very rarest kind Sometimes it happens through a book on a child's hobby The writer will never forget the delight of a certain boy in Stephen Meader's "Red Horse Hill" This boy's mother and grandparents had been New Hampshire farmers with unusually strong interest in the land and the growing of things

'Why this is the kind of book I've been looking for all my life, 'said he "Why did no one ever give it to me before and what else can I read like it?"

Every person wno cares for children enjoys making gifts to them To help a child to find pleasure and delight in books is to present him with a treasure not unlike Aladdin s lamp, a treasure which cannot be lost nor taken from him, and which will enrich his life to the end. The love of books is truly a magic treasure because it means to the holder ever more abundant life

First hand knowledge and genuine enthusiasm furnish the only true bases upon which to recommend books to another person whether child or grown-up

The parent or teacher who has not had the tradition of books in his childhood and youth should realize that the lack cannot be made up entirely in after years, but he should not be discouraged. In the first place, the history of children's books is a fairly short and recent one. In the second place, if the teacher will begin now to read some of the splendid children's books, he will find rest and delight in them

# IMPORTANT CHILDREN'S BOOKS OF THE NINETEENTH CENTURY

#### PICTURE BOOKS

RANDOLPH CALDECOTT WALTER CRANE

Picture Books Picture Books Baby's Opera Mangold Garden Under the Window

KATE GREENAWAY

Jeanne d Arc

M BOUTET DE MONEL

#### FOLK LITERATURE

Tales

JOEL CHANDLER HARRIS Uncle Remus His Songs and His Stories

#### Mythology

JAMES BALDWIN NATHANIEL HAWTHORNE

The Story of Siegfried The Wonder Book and Tanglewood Tales

CHARLES KINGSLEY The Heroes

#### Heroes

JAMES BALDUTY The Story of Roland SIDNEY LANIER The Boys' King Arthur HOWARD PYLE The Merry Adventures of

Robin Hood

Howard Pale was the greatest illustrator America has act produced

# ORIGINAL TALES OF IMAGINATION YND LYNCL

CHARLES E CARRYL CHARLES L DODGSON (Lewis Carroll)

Davy and the Goblin Alice in Wonderland and Through the Looking-

Glass The Peterkin Papers

LICRETIA HALE RUDY APD KIPLING GEORGE MICDONALD

Jungle Books At the Back of the North

U ind

The Princess and the Gob-

The Little Lame Prince

The Cuckoo Clock

MARY L MOLFSWORTH DIVIH M MULOCK BEATRIX POTTER

The Story of Peter Rabbit Pepper and Salt HOW AND PYTE

The Wonder Clock

The Garden Behind the

Moon

The King of the Golden

River

WILLIAM MAKEPEACE THACKERAY

JOHN RUSKIN

The Rose and the Ring

	POLTRY	AND	VERSE	
-				

ELICENE FIELD Poems of Childhood
Eduard Lear Non-ense Rool's

ROBERT LOUIS STEVENSON A Child's Garden of Verses

## STORIES OF REAL LIFE

Louisa May Alcorr Little Women
Little Men

Jo's Boys
THOMAS BAILTY ALDRICH The Story of a Bad Boy

SAMUEL C CLEMENS
(Mark Twain)

The Adventures of Tom Sanyer The Adventures of Huelle

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ABBY MORTON DIAZ Polly Cologne

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#### STORIES OF HISTORY AND ADVENTURE

JOHN BENNETT M. 165 STATES

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CHARLOTTE YONG DOVE IN the I TANK THE INTERPOLATE

# CHILDREN'S BOOKS PUBLISHED SINCE 1000

A Representative List of the Best Selected for Parents' and Teachers Reading

#### PICTURE BOOKS

Boris Artzybashi ff The Pairy Shoemal er Seven Simeons

INGRI AND EDGAI PARIN Children of the North

D'AULAIRE Lights
East of the Sun and West

of the Moon
LUDWIG BENTLYANS Hinsi

The Golden Bisket

LISA BESKOW Pelle's New Suit

Aunt Brown Aunt Green,

Aunt Lavendar Johnny Crows Garden

L LESLIE BROOKE

Johnny Crow's Gurden

Johnny Crow's Party

Johnny Crow's New Party

The Golden Goose Book

Ring o Roses Round About Turn

Leslie Brooke, an English illustrator, carries on the Caldecott tradition and ranks today at Caldecott Green

a tay and Crane

CHARLES LALLS THE TAILS A B C
WANDA GÁG THE A B C Bunna
Millions of Cats

A picture book tale of a kindly old nan's serrel for a killen

REKTA AND ELMEK HADLK The Picture Book of

Mother Goose Spunks

THOMAS HANDFORTH
DOPOTHA LATHROP
Hide and Go Seek

The Small Who Ran
Who Goes There?
WHILBREE LI WAIR
WARN I INDELL
LITTLE Machinery

MALD AND MISEA PETER The Christ Child Miles

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I LODOF ROJANEOVSKY Deniel Boome
Lake of Poundi

KATE STREDA The White Str. \*
HELEN STWILL A LITE BING
Blue Bar is

BLANCHI LISHER WEIGHT - The Real Mother G.

Inc Jolly Moder Go

#### TOLK THEKATERI

If one is interested to read widely in tury table the cree many time collection guillered by countries. Any one of Andrew Linux strainbo collection—Linux Books, Blue Broan Green Libra Pink, Kellow—will give an interesting collection of a later various nations. In this small list in a read to a remphasized Traine Jenlins Obott less read to a short his tory of the country of the tables read a short his tory of the country of the tables read a short his tory of the country of the tables read a short his form. Wonder Tables from Consequences with the form Consequences of the strain Green winds all the strain Green winds all the strain Green winds all the strain Green winds and the strain Consequences.

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PARLER FILLMORE	The Shoemaker's Apron	ARTHUR B CHRISMAN	Shen of the Sea*
A collection of Czecho-Sle		Elizabeth Coatsworth	The Cat Who Went to
Charles Finger	Tales from Silver Lands*		Heaven*
	hor from the people in Central	PAUL FENIMORE COOPER	Tal
and South America	- 1 G 101	WALTER DE LA MARE	The Three Mulla Mulgars
BERTHA L GUNTERMAN	Castles in Spain and Other	A very beautiful story of T	Thumb, Thimble and Nod, thice
	Enchantments	little Royal Monkeys and to	heir journey in search of their
Joel Chandler Harris	Uncle Remus His Songs	Uncle, Prince of the Valley	
	and His Sayings	Eleanor Farjeon	Martin Pippin in the Apple
Folklore of the American			Orchard
MARY H HODGKINS	Atlantic Treasury of Child-		Martin Pippin in the Daisy
- , , , , , , , , , , , , , , , , , , ,	hood Stories	D	Field
	ories as well as tales of almost	RACHEL FIELD	Hitty Her Tirst Hundred
every folk type	The Long Dweht Land	The stand of a west table	Years*
EDITH HOWES	The Long Bright Land	hand a sum of "IT-tto " sur-Ja	cooden doll Dorothy Lathrop,
Fairy Tales from the Sout	Celtic Fairy Tales		delightful pictures for the book
JOSEPH JACOBS	s, Scotland and Ircland by a	LENNETH GRAHAME	The Wind in the Willows
	Ecers one of his collections	WILLIAM H HUDSON	Little Boy Lost
	rson who is truly interested in		
folk tales	ison who is truly interested in		n South America who explores easily of the earth, the wonders
ARTHUR RANSOME	Old Peter's Russian Tales	under the earth and the joy	
HEVRY R SCHOOLCRAFT	The Indian Pairy Book	KATHERINE HULL AND	The Far Distant Oxus
	from the Indians in the West	PAMELA WHITLOCK	The Tar Distant Otus
	by a scholar who lived among	SELVA LAGERLOF	The Wonderful Adventures
them thirty years	cy a senorar ene crea among	DDD III ID TODINGOT	of Nils
~	English Fairy Tales	Hugh Lorting	The Story of Dr Dolittle*
Illustrated by Arthur Rac			place now with the "Peterkins,"
	ng most of the familiar nursery	"Alice," and other immorta	
tales		CARLO LORENZINI	The Adventures of Pinoc-
JAMES STEPHENS	Irish Fairy Tales		chio The Tale of a
	thology		Puppet
Padraic Colum	The Children's Homer or	CORNELIA MEIGS	The Wonderful Locomotive
	the Adventures of Odys-	DHAN GOPAL MUKERJI	Gry Neck*
	seus	ARTHUR RANSOME	We Didn't Mean to Go to
	The Golden Tleece and the		Sea
	Heroes Who Lived Before	CARL SANDBURG	Rootabaga Stories
	Achilles	Frank Stockton	The Queen's Museum
-	The Children of Odin	"The Christmas Truants,"	" "The Griffin and the Minor
	erocs	Canon," "The Bee Man of O	rn," "The Clocks of Rondaine"
HOWARD PYLE	The Story of King Arthur	and other whimsical tales ful	The Treasure of the Isle of
Express Tennesses	and His Knights	W W Tirn	Mist
Eunice Tietjens A hero story of the ancient	The Romance of Antar	D. T. The common	Mary Poppins
ELLA YOU'S	The Tangle-Corted Horse	P L Travers	Mary Poppins Comes Back
DELA 100 VG	and Other Tales		many 1 oppins comes —
	The Unicorn with Silver		
	Shoes	POE	TRY
Episodes from the Saga of			
2		JOSEPH AUSLANDER AND	The Winged Horse
ORIGINAL STORIES	OF IMAGINATION AND	FRANK ERNEST HILL	
	NCY	MARY AUSTIN	The Children Sing in the
			Far West
J M BARRIE	Peter Pan and Wendy	WALTER DE LA MARE	Peacock Pie
HENRY BESTON	Firelight Fairy Book		Songs of Childhood
Margeri Bianco	The Little Wooden Doll		A Child's Day
	The Velveteen Rabbit		Come Hither
Anne Casserley	Michael of Ireland	RACHEL FIELD	Taxis and Toadstools
	Roseen	Rose Lyleman	Fairies and Chimneys
4 . 7	The Whins of Knockattan	CLIZABETH MACKINSTRY	Puck in Pasture
A rare book of stories of the	Little Black Lamb, or Paudeen	A A MILNE	When We Were Very Young Winnie the Pooh
and his Grandmother			Witting the Loon

	BURTON E STEVENSON	Home Book of Verse for Young Γolks	STORILS OF HISTORY AND ADVINTURE	
	SARA TLASDALE	Ramboy Gold	LAUPA ADAMS AFMER	Heler Fel
	BLANCHE I THOMPSON	Silver Pennies		W terl Mo t *
		More Silver Pennies	CAPOI RAPIE BEINE	Cadd c Working at
	I OUIS UNTERMFYER, comp	This Singing World	Cril Werday in Wiscon	,
	KATE DOUGLAS WIGGIN	Golden Numbers	Betlah M. Dix	Merch
			JIANETTE LATON	Le der by De tray Wall
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			ELIZABETH JANET GEAY	Penn
	Frances Hodgson	Secret Garden	A dramatic aid true pet ii	reoffichiec W. Ic.
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	DOROTHY CANFIELD	Understood Betsy	11/1/18	The Mutineers
	ELIZABETH COATSWORTH	Alice All By Herself	ACNES DANIOLTH HEWES	Space and the Devils Cave
	A story of the everyday l Told with poetic feeling	ife of a little girl in Maine	Mrs Forestin C Hoofe	Cricket a Little Grafic to
	LUCY EMBURY	Painted Saints		Star The Story of an Ir
	A story with a setting in th	ie Fair of Little Saints		dian Pony
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		Yangste*	Lois Linski	Phebe I airchild
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Written by the three young daughters of Lin 1 utang integrity				
	Stephen Meader	Red Horse Hill	I LOIST I OWNSBIPY	Out of the Hame
	Elizabeth Cleaveland	Children of the Mountain	JOHN MASEFIFID	Jim Davis
	Miller	Engle	CORNELIA MEICS	Clearin, Weather
	Margaret W Morley	Donkey John of the Tov		The Covered Bridge
		Valley		Invincible Lou x
	Lucy Fitch Perkins	The Dutch Twins	1 fine biography of Lous	r Max Alco t
	Monica Shannon	Dobry *		The Nex Moon
	The Story of a young art background	ist with a Bulgarian peasant	LTHEI PAPTON	Vinny Apple as —Her I at Acar in No. Aori
	HILDA VAN STOCKUM	The Cottage at Bantry Bay	A story of the 1870 s	
	Ruth Sawyer	Roller Skates*	CAROLINE DALI SNIDLEEP	The Spartan
	ELIZABETH K STEEN	Red Jungle Boy		Dov nright Denecy
	Presents the daity life of a	ten zear-old Caraja's Indian	EVALUEN STILIN	Gabriel and the Hour Book
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	ELIZA ORNE WHITE	A Little Girl of Long Ago	the beautiful illuminated the	Is of that to c
		When Molly was Six	ROBERT I OUS STEVENSO	Treasure Island
	KATE DOUGLAS WIGGIN	Rebecca of Sunnybrook	Eunice Tiftjins	Boy of the South Sees
		Гаrm	HUNDRIK VAN LOON	The Story of Manharit*

<sup>\*</sup>At the suggestion of Trederic G. Melcher founder of Children's Bool. Week, the American Liberty American International annual medal. For the most distinguished contribution to American Literature for children in ded. In the process of the fitting that this medal is called the John Newbery Medal in honor of John Newbery, the earliest published to the process of the following a star have won the John Newbery Medal.

\*\*Recently a second award was established for the most distinguished contribution to a picture book for American Contribution in a process of the following the second award was established for the most distinguished contribution to a picture book for American Contribution as the Caldecott Medal in honor of Randolph Caldecott a poneer illustrator of books for children. The local contribution is a process of the caldecott Medal.

# MY CHILD AS A PERSON

# A MESSAGE TO PARENTS

#### By WILLIAM H KILPATRICK

Professor Emeritus of Education, Teachers College, Columbia University

WISH the best possible for my child but often I neither know what is best nor how to secure it "So many a parent feels and perhaps increasingly so in recent years. Here we are to consider only one part of the problem, the child as a person and, more particularly, how the child may become more of a person or more fully a person. These words, "more of a person," may sound strange. How shall we understand them?

Consider the saying, "Man is an animal', and the turther saving, "Only a human can be a person," To be a person points then beyond the "mere animal' to something which the mere animal has not or at most has only in lesser degree. We must not here repeat the old mistake of two distinct natures joined together in man For best opinion now counts that man is a whole and that in his every act all parts of this whole cooperate. But the matter of degree is a fact of nature easily seen. When we contrast stone, tree, dog, and man there is in the dog clearly more of life more aliveness, more liveliness than in the tree, and still more of this in man. If the tree and the stone are alike in some things in weight for instance they still differ greatly. And the dog differs from the stone more than does the tree, and man much more vet. It is this increasing quality in life, in fullness and variety of life that here concerns us, this something of which the dog has more than the tree and the man more than the dog In this greater and richer lite we approach nearer to seeing what the person is

But some one may ask what about this ' more of a person or more fully a person? ' I see that the dog differs in this fact and quality of life more from the stone than the tree does and man still more but where is 'the more of a person? To answer this suppose we consider another series, a baby one day old a boy of six a youth of eighteen, and a man of forty, and to make the discussion easier let us suppose that each of these is a fine specimen for his age Are there any differences? What are the chief difterences? Bodily differences are clear. Mentally the vouth — we are told — can learn better than the box and both better than the baby And in this learning the vouth is better than the boy. Even where their experiences have been the same, the youth can solve more difficult problems. As for the youth and the man it appears to be true that where their experiences are about the same they learn about equally well both in point of difficulty and otherwise

But as we think of "more of a person," we are concerned with something beyond just body and learning ability. This increasing aliveness or growing fullness and richness of lite seems to be much tied up with the use made of one's talents and opportunities. To bring this out more clearly let us consider the boy and let us imagine a second boy of the same age equal at birth in mind and body with the first, but one who somehow has used his possibilities badly.

How does the "more of a person" show itself in the one boy rather than the other? How will the two boys differ? Chiefly perhaps in three respects, in "disposition, in interests and in their actual working minds. In disposition the worse boy may be emotionally ill-balanced. spoiled demanding much attention to himself, easily irritated, quarrelsome with other children, given to temper tantrums with his parents Also in demanding attention to himself he is likely to resort to increasingly annoxing measures until he gets attention even it this be punish ment Or this boy may be emotionally ill-balanced in quite a different way, very shy, a "sissy" afraid to play with other boys, studious perhaps, but a day-dreamer, possibly the pet of an unwise teacher, but despised by the other boys He may be mother s darling who comforts him when he seems unable to face life as do the other There are of course, many different ways in which a boy may go wrong. It is interesting, too, that we can describe shortcomings better than excellencies. We have a better set of terms especially some newer terms, for shortcomings, but it has not been so easy to describe excellencies partly because we are not so well agreed on what is good. Even to this day some parents and teachers like and approve the shy studious day-dreamer - he is "so good" "so obedient, and "gives so little trouble" But more and more we are asking what kind of future will come out of it, and more and more we are seeing that the future is not good for the child who withdraws from lite as it is in order to live more happily in his dream land The danger is that one will more and more withdraw from life as it is until he can no longer 'face reality' This state of affairs is much more to be feared than many kinds of more positively disagreeable behavior. Some kinds of "bid boys are much healthier personalities than some "good boys

The more fortunate boy is then harder to describe, but we must make the effort We are seeking too, to find out what it is to be "more of a person The more fortunate boy is on the whole sweeter-tempered, though he can get angry, but in both he is more reasonable. Play means much to him especially with other boys but also with girls In whatever he is doing he expects to be treated fairly and for one of his age he is pretty clear as to what fairness demands not only from the others to him, but also — though less clearly — from him to them He may at times pout, but it is generally for a reasonable complaint and even then seldom for long He seldom harbors grievances. At times he seems a bit too argumentative over his rights, but even so he learns and next time he will likely see more justly He enjoys praise, but he does not demand too much attention to h mself In fact, he gives himself now more and more to what he is about with less thought of himself in connection He is on good terms with both inther and mother and enjoys engaging in enterprises with them, but he has ideas of his own and feels that they should be considered. His parents approve this growing independence but at times find trouble in an over insistence on his ideas. He is generally obedient and trustworthy, but needs help to charify and maintain standards.

One marked characteristic of the more fortunate box is the growing range of his interests, and also that he gives himself to these more heartily and absorbedly than for merly. While he shows this growing attention and persist ence, he can still shift his interest readily - too readily his parents sometimes think if something new comes up He asks many questions, good ones too for his ige. In fact this is one of the best signs of his growth, that he now isks more and better questions than list year and ilso that he shows more wish to answer his own questions and more ingenuity in finding good inswers. He liles also to visit and examine new things that he has he ard about He is keen to handle each new thing or otherwise look closely into it until he understands it to his satisfac tion. Sometimes he insists over much on knov ing v hat is beyond him but a further sign of ichieved growth is in the increasing depth of his understanding. He goes not deeper down in understanding things. What he has learned shows itself out both in the better questions that he can ask and in the better quality of york that he does whether my others are looking or not. He has higher standards. He shows too greater resources and greater skill in almost ill that he undertakes but even so he sometimes attempts more than he can timely. In fact unwise attempts seem at times his greatest fault, but he seems to be improving in this respect

To sum up the worst things perhaps to be found in the less fortunite box are his lack of emotional stability his lack of willingness to deal patiently with life as it is — two ways perhaps of describing the same shortcoming. He will not face life as evenly or a fruitfully as he might. He refuses to look squarely and evenly at the saturation is he does see it or could see it and refusing thus he easily gets into a rage. Or even yorse refu ing to face reality squarely he creates a dream world and tries to get from it the saturation which he is not brave enough to attempt from the real world. And the worst of each of these short comings is the future to which it naturally leds.

In contrast, the best things to be found with the more fortunite boy have to do with the quality of his present life, both that it means happiness now and that it promises well for the future. Turst in particular, this box is emotionally balanced as he faces difficulty or defeat. What he sees he looks at squarely — on his level — in order to s a better and he tries bravely to manage what he sees If he fuls at first, he tries again, only more carefully. It he tails finally he does not get into a fit of temper but sall - always on his level - looks carefully into the cause: his fulure and learns from it. Seldom does he sield to rige or pretend that he sees what is not there All th of course is on his level. To us his seeing may it times seem pathetically short and weak. You or I ould o tea see far more and better than he and it is a are not wasca is may short circuit his efforts by telling him too soon or otherwise huritully what is see but the important thing is not so much what here see as they are in high Ic tries to see and work and has Ic profits by falure. I

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It may appear that more stort to the level have torgoten the voith and the south and the south and the correction to the picture. However, the box of the properties better he had better the south and that of the turth represented.

The youth differ from the lay chief and has aroun through his ever and and perience. There i more content to be all it plexity to he thought he reclusive to His character and his disposite a should said by the his experience bravely and trightfulic with his parents fearful as to perable et aco extend 14.1. youth from 1st in diament greater dinger in such a procedure. It see er parental efforts at suppress on and least that face his questions he may on trook had question. Many children in con-ry itive I corse to que tion. As upid contone to the aller to to reduce by so much the youth that I there and to add one more to the rink of it. unrecomm, concreation has been concern a more violent reaction in our rail it it knowingly at his que tions and the certain blocks me me han 1-12 be interested in invthing! Who has ever ear Such a result help a 1th lite 15- 3 the other hand, the youth section be set side but only to 1 di t 1 m 1 m+1 m covertly with rejects a or parers. This is unh lip rether lite north of lea youth build eith box stord in I perplexing experiences of trobble linearies brively and squarely to I at from d self stronger and bitter in the litter is may be for process of a member er conc. the hander a city becomes the non-is-the-ecrdividual half-carren Minque tion that area In t 1 white reserve \* C scaradii tale T build-city on the 1th broken a of continue miled of a to 1 \* ((t = 21\* 1 d = 1 termenten with the m ar) irate n b clicz "

The variation of the company of the

world about him, the youth will wish a deeper "why" into social and moral life. The widening range of the youth's interests will join him now more closely with other people in society, while certain specially growing concerns will separate him from the mass and lead him into his coming profession.

Possibly the chief difference between the youth and the boy is the matter of degree in thinking. The youth raises more questions because his wider knowledge shows more conflicts He has learned too to make a more conscious effort to look more widely about and deeper down before he decides The man will think of the youth as still impulsive and so he is, but in comparison with the boy the youth thinks more and better He looks further into the future, he takes more things into account and he takes them better into account as he makes up his mind. Moreover, he thinks more about the process of this thinking he is coming to be a more conscious judge of his own and other people's success in thinking This better thinking holds for him just as truly in the moral realm as in the intellectual and practical. Where his thinking is bad it is likely to be because his experience is small Or it may well be because the people about him are not concerned to apply criticism in their thinking. Always we grow more surely when those about us hold up high standards

As we compare the youth with the min two things stand out. The man has an occupation which takes his dominant attention and he has achieved a much wider and better integrated outlook on life. The youth is more often discourared. Life appears dark. Others do not yet accept him. He does not himself know what he can do, and he does not know what to believe. The man has found out, within limits, what he can do, and he has achieved an outlook which gives him on the one hand a poise and balance to life and on the other—is he sees it—a cause worthy of his best efforts. To have found one's work, to have struck one struction on life,—these are life's great achievements.

With the main outlines now before us, what do we conclude is that "more of a person" which we sought at the beginning and how shall we as parents help our children progressively to achieve it?

Let us first in summation recall the quality and content The dog we saw lives more fully than the tree, there is in him more of life to live, more different ways in which to live, more of the quality of enjoyment (so we beheve) in what is lived. But if the dog is thus superior to the tree, man in this respect is far superior to both. And similarly, the boy here greatly surpasses the baby, the youth surpasses the boy, and the man should surpass the youth It seems true, at least in some respects, that childhood and youth have a certain advantage in freshness and vigor of reaction — it is but right, life at each stage is life in its own right and has its peculiar enjoyments - but increasing experience should bring range and inner distinctions and accumulated insights. Then, to live more in the wider range of achieved experiences, to live at any one time through a more growing experience, to see and feel thus more of actual experiencing, to see and feel more of significance along more lines - wherever these things take place, there life is nicher, there the person is himself richer This is one aspect of what it means to be "more of a person"

But there is more The person consciously directs his own life The tree has life and is thus in a very limited sense self-directing The dog has much more of life and in much greater measure directs it. But only man in any full sense directs his several acts in criticized knowledge of what they mean Man alone acts with conscious criticized interest The babe lives vigorously, but - as we know - his life is largely directed for him. The boy is by contrast much more highly self-directing youth however, sees more than the boy and can thus direct his life more intelligently than can the boy man sees still more, and can still more intelligently and defensibly direct his life And there is no end to it, each one can in this regard keep on growing indefinitely ever-growing intelligent self-direction of life in the light of increasing insight and foresight, this taking ever more into account and better, this is perhaps the main sign and evidence of growth as we further define what we mean by the "more of a person"

But there is still more. We may repeat the last thought with emphasis on the responsible acceptance of consequences A person in the degree that he acts in any full sense, assumes responsibility for what he does. With a slave, for example, it is different. Plato called a slave an animated tool, because as a slave he accepted his purposes from another His master uses him as he might a Acting as a slave, he does not carry responsibility for what he does Any person — in the degree that he is a person — forms his purposes not arbitrarily from whim or mere prior formed wish but only after conscious effort to see and value all the pertinent consequences of his proposed course In like degree does such a person consciously accept responsibility for the consequences of his So to act and so to grow becomes then the moral definition of the "more of a person"

We are now ready to bring together in one focus the various things to be included in the phrase "more of a person or more fully a person"

First is emotional stability, the integrated personality This we saw at an early stage as the better six-year-old increasingly faced his life difficulties -- "faced reality" on his level - neither in anger at his lack of power nor in cowardly retreat into a dream world, but — to continue with our adult language — in a reasonable effort to do his best with a reasonable willingness to draw appropriate lessons from any outcome whether of success or failure We saw the same emotional stability, now grown older still holding under the fires of adolescence and the same taking on yet further development in the man's ever growing but still ever stable outlook on life, an outlook both stable and growing because it is based not on dogmas counted as settled but rather on methods of study themselves growing, always available for attack on life's unending stream of novelly developing situations Such an emotional stability, ever growing both in external purview and in internal coherence, forms the necessary foundation as we continue to seek the ever "more of a person"

It is the way in which the child meets and grapples with the difficulty that counts, not so much whether he succeeds with what he set out to do as how carefully he

tries and how he feels about it intervireds. It he tries faithfully, thinks it through looks equirely it things coshow things turn out and why—if he does the ething is best he can and does not get angry or try to evide is ut then he is growing, and yill grow into more of a person. This growing will thus come about just as surely is a stone turned look will fall.

"But what can I do? Where do I come in? the parent will invously is! The insver is clear. Your pare is als as similared. You can directly hurt, but only in directly can you help. And this is so because it is what your child himself does that counts here mo t of all it is what he does on the inside that counts in building him into "more of a person".

Your child must 'try faithfully" but if you nale him try he may try only on the outside where you can see. It is the way he tries inside that counts. Many parents refuse to see this and they sometimes storm and threaten. This is very dangerous. It is a good way in which to build emotional instability in your child. And here, up pears perhaps the greatest of possible demands on the parent. If the parents are not emotionally stable either as they deal with each other before the child or as either deals directly with the child, then the child is in great danger of becoming himself emotionally unstable.

What I can do then to help my child must be by way of giving him a chance to have varied experiences and helping him to face the problems is they arise both faithfully and patiently, and this in such manner as to learn from the experience whatever it has to teach. One vay to help him is to give him a good chance to lave opportunity to play—and later work—with others near his own age without too much interference from the outside. This is the basis of all else. Without this we can have little hope. But more is needed. Sympathetic oversight must step in from time to time to help things go better than otherwise they would. We have to help the child think better and more patiently and fruitfully than he could by himself. He grows only by what he does but we can and must help

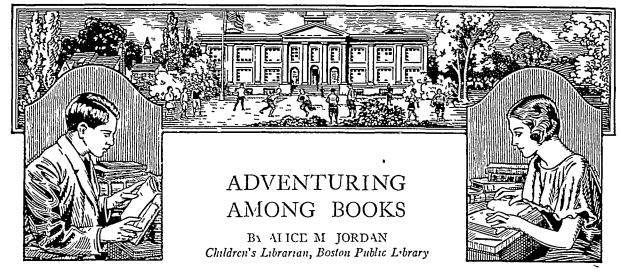
Some people will ask whether we are not goin, to spoil children if we act only indirectly. To let this happen would be exactly the opposite of all that has here been said. Selfish whim is the very thing we are here mo top.

po ed to y left time deletaries in the come more of a larger time. The come more of a larger time. The come more of a larger time and y long state edges in the could ylor mestate edges. The circle is the could be found a count to be the composite of the could be the exception of the count time to and yill be true y left edges edges to a person. Hippy the chief is a larger to a person. Hippy the chief is a larger to a person to be the chief that the count is a larger to be to a person to be cherrently the chief in the case of the count of the state of the count of the state of the chief is a larger to of the state of the chief in the case of the count of the state of the count of the count of the state of the count of the state of the count of the count of the state of the count of the count of the state of the count of the co

We may sum the vlole diet in book to the thick childs to become a person tend in must let if possible is not define rend to the first and our part is to help him thus to let all every a child cannot do this help not vet a promain to the sense. But we must also is have must let the sense. But we must also is have must let the let come a person and every ore chapses of the explosion who best we can in the light of its harmough and the light of its harmough and the light think things through as best help my child face his situation vachements. It is think things through as best help made to possibility and accept to possibility.

Some perhaps will vonder that so little holders is herein about school. The one of vias into the little traditional school which most parents till think existinct than school vias run on a plantical active carded and even opposed. In a large disk tell older school is now being rapidly riade even admer all help the process. It is sforthis purposed and reflect this article has been virtued. One principle and the their thick will vish it for their children and dimensional their their children and dimensional the schools. In school or one has some even after the children and dimensional their children and dimensional the control of the schools. In school or one has some expension of the subject in after the shoot can be children as the control of the country and the run hill min his in the control of the country in the run hill min his in the country and appear one.





OPENING a set of books like this is like entering a great railroad station with lines running out in every direction. You may take a train on one of the tracks and start out on a journey full of surprises you have never guessed, or you may choose another way that will carry you through country you have traveled before where you pass the landmarks of familiar scenery with a pleasant sense of recognition.

Each one of these volumes will transport you far if your mind is alert enough to do a little exploring in unknown territory. After reading about the Sea Anemone you may want to see with your own eyes how the soft body clings fast to a rock while the waving fringes open and close at the slightest touch. You may wish to discover for yourself some characteristics not mentioned in the book. When, in the springtime, you read about the flowers due in April, you will hardly be content to sit in the house while trilliums and jack-in-the-pulpit are waiting in the woods.

Or when in Volume Four you read about "Byrd, The Adventurer," you may want to go at once to the public library and read Dick Byrd's own account of his adventures. Some one else turning the pages of "The History Book" may be caught by the words "Cuneiform Writing", and feel that he would like to know more about the early race that invented this ingenious way of communicating. So he, too, will go to the library on a voyage of exploration

These two methods of finding out things for yourself, one by observation, the other by reading, give freedom to an intellectual curiosity which makes the world a more interesting place

to live in The first time you start on your own accord on one of these quests you are beginning the process of self-education by which all of us learn more than in any other way. That is the purpose of books like The New Wonder World, to stimulate an interest which demands further reading and investigation. For no one book of reference can discuss an important subject from every angle.

But very often, instead of reading at random, you will turn to this set of reference books to satisfy your curiosity concerning something you have already seen or read about. Perhaps you may wish to find out for yourself the secret of an invention you have heard discussed, yet do not fully understand. By following the lead of a lively curiosity a man becomes master of the subject he has chosen to study. No school can do for you what you can do for yourself if you learn how to use books skilfully

Since it is a great deal more important to know where information may be found than it is to try to store up in memory a large number of facts, a wide-awake person must be prepared to cultivate the spirit of an adventurer among books. He will probably start his expedition by looking into a reference book first

The books usually so called are arranged for convenient handling. They include many kinds of encyclopedias, atlases, dictionaries, and utility books of varying character. You cannot expect that any set of books will answer all types of questions, so it is well to know the special field of the more important kinds.

Tempting as it is to open a volume and read whatever strikes the eye or catches the fancy,

perhaps skipping from one topic to another, the real test of a reference book is its usefulness when a definite inquiry is afoot. The demands of school work cause many such inquiries. Yet the morning paper with its news of scientific discoveries also arouses one to seek information more detailed or explicit than its own brief statement. To know how to use books to find facts quickly and dexterously is a skill worth acquiring.

People speak of the "pursuit' of knowledge. When interest is sufficiently keen to cause us to seek the truth about a subject in the reference book at hand, it is likely to urge us to go further. Then the true zest of a hunt is upon us. We are keen to find further mention of our subject. We follow up every sign that looks hopeful.

In a set of books like this, the Index is a very important device which serves as a key to the different volumes. Much valuable information is hidden in articles which do not immediately show the full scope of their contents. For example, in addition to the leading article on Louis Pasteur in Volume II, the Index shows there is an account of one of his great experiments under the heading "A Test in a Larmyard", in the volume entitled "Adventure and Achievement". We can also follow the trail of cross references calling attention, by the word See and See also, to other places in the set where the topic is discussed.

Besides giving a survey of the whole set, the Index is also a time-saver when a fact is wanted in a hurry. By making it a rule to look there first, a student is employing the best method of using a book as an instrument of knowledge. When this becomes a habit, any other way of seeking a fact seems slow and clumsy. One does, to be sure, obtain a survey of a volume from tables of contents and page-headings but the Index is the tool by which we find the exact page where the reference may be found. In in atlas it does even more by indicating the small section of the map where the place name is printed.

Sometimes the first book you consult will contain just enough information to whet your appetite for more. Sometimes it seems to contain almost everything except just the one point you are seeking. Here is where the fun begintor the independent pursuit of I now ledge that is

the game of than the thinble except besides the exercise of the hunt of the constion of the thimbleful of trees you care mistery over printed sources of information.

Different writers look at a subject from different angles, each one contributing his individual point of view. To be thoroughly interned student must get these divergent vie point and dray his own conclusions. With closs concentration on a single topic a bot or carl in a soon become better informed on that topic that anyone else in his immediate circle perhaptive in his community. Given access to a good collection of books and the stimulus of a genuine interest, there is no limit to the possibilities of independent research.

But reading to find out things is not the only way of deriving pleasure from books. In The NEW WONDER WORLD there are sections containing poetry, short stories and selection chosen as simples from books of literature. Many of them are stories of real life others are from the world of imagination which has its wonders as well as the world of Nature. It one emoys these brief selections it is election to know that the books from which they are taken are generally to be found in fibraries, and the whole book is frequently even more delighered than the extract

Some books which do not contain a single item of information have the policy of broadcasts ones whole outlook on lite and giving exqueste pleasure. Great creative literature helps is better to understand human motives and actions or transports us to an ideal vorletor and actions or transports us to an ideal vorletor and inspiring. As we read about this order it people seem alive and their expire cessive us almost as vividly as those of our frences. We are sorry original with them, and in the problems and interpret events a compact of a large problems and interpret events a compact of a large.

While one person then virts it solved him construct a ridio a solver is it so recommended that vill carry him tartire. It seems day could bus it persons can constitute books they require to seest of a right a search or their desire to retreat the recognitional reading.

Toronately resolution of the

to do so, because all over the country are public libraries or school libraries provided with collections of books to be consulted without cost to the individual People are sometimes unwilling to use public libraries because they do not feel at ease in them Others think of a library simply as a storehouse from which one draws out an entertaining book to take home They do, indeed, know that books of many different kinds are kept in library buildings, but they are not sure how to find anything except what is immediately before their eyes With a little patience they could make more rewarding use of For the public this great free institution library exists largely to help the people of a community pursue their after-school education

The atmosphere created by the presence of many books kindles our respect for our fellowman. All the knowledge that man has been able to gain in his life on earth is set down in books. All the wisdom and wit, all the high imaginings of past ages are gathered within these walls. And it is here for us to enjoy if we will

It is inviting to read the names on the backs of the books and make plans for future reading Yet to learn the elements of library arrangement is worth the effort. Every orderly tradesman puts goods of the same kind together He does not put some of his apples with the lamp chimneys and others with spools of thread On the contrary, he puts apples with apples, lamp chimneys with other lamp chimneys, and spools of thread by themselves That is to say, he classifies them When a librarian, then, arranges books so that the fiction is together in one place and the biographies stand side by side on the shelf, he is only following the practice of all good storekeepers and housekeepers

Just as the index of a book is the key which unlocks its contents, so the catalogue of a library reveals the names of the books it possesses. In modern libraries, catalogues are printed or written on cards and filed in drawers, instead of being bound up in book form, but none the less they are merely lists and in no way difficult to handle. Even quite young children soon acquire the ability to find the names of books in a card index.

A city or town that possesses a good public library and gives it adequate support is making a profitable investment for its citizens. And since each citizen is a shareholder he should expect to receive from it a full measure of returns. But he can do so only by making himself acquainted with the library resources.

When young people grasp the idea that books are for pleasure, they turn to the library habitually and gladly in their leisure hours

The young worker will find that books have also a practical value. There is no vocation but has its own literature. Whatever a man's calling may be, he will follow it more efficiently and whole-heartedly if he reads contributions about it in available printed form.

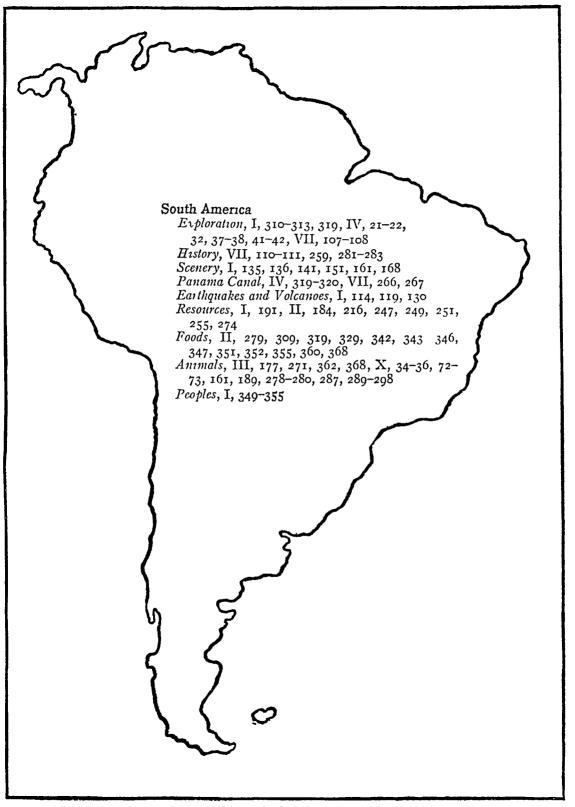
Although for purposes of research it is generally desirable to have access to many books, we do not need to know them all intimately. Companionship with books is one of the joys of life. A book lover will always have a few which he holds especially dear, to which he turns with the assurance that he will not be disappointed. From these he draws strength and courage in times of stress, rest and comfort when he is tired, pure delight and refreshment when his spirits are dull. These few are his friends and in their friendship he counts himself rich and happy

# Map Studies

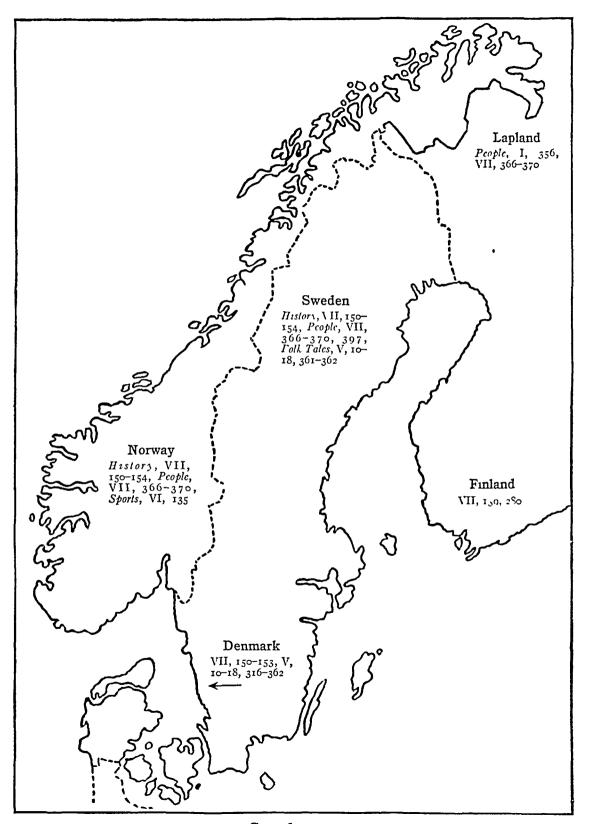
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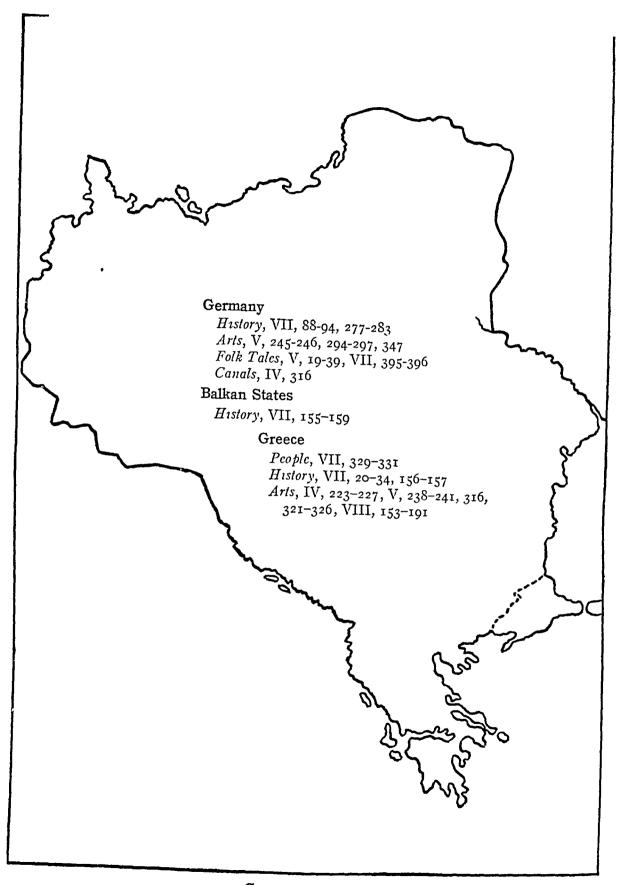
THESE outline maps will serve as keys to material in III NIW WONDER WORLD. It is suggested that the child trace from these maps outlines of each country and then fill in for himself facts found out on the pages indi-For instance, he might draw on a map of Africa the animals which live there. On another map of Africa he might make a list of peoples, on still another, of natural features, deserts, rivers, etc. Maps of the Arctic and Antarctic regions may be traced from his geography and filled in with names of explorers listed in Volumes IV and VII The twelve maps, with lists, here given are intended only as suggestions and arc by no means exhaustive of the material in 1111 New Wonder Wofed They vill be found useful for the map work called for in the Teachers' Outlines

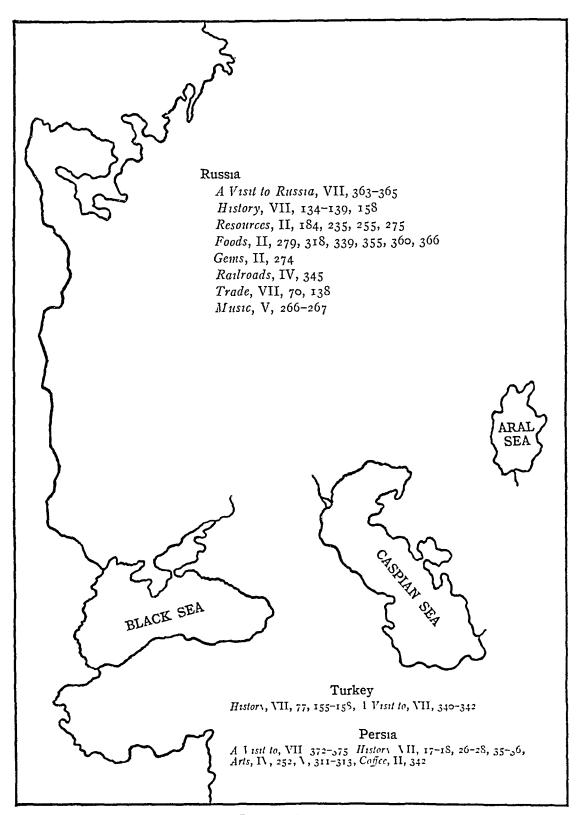
North America, Northern Portion

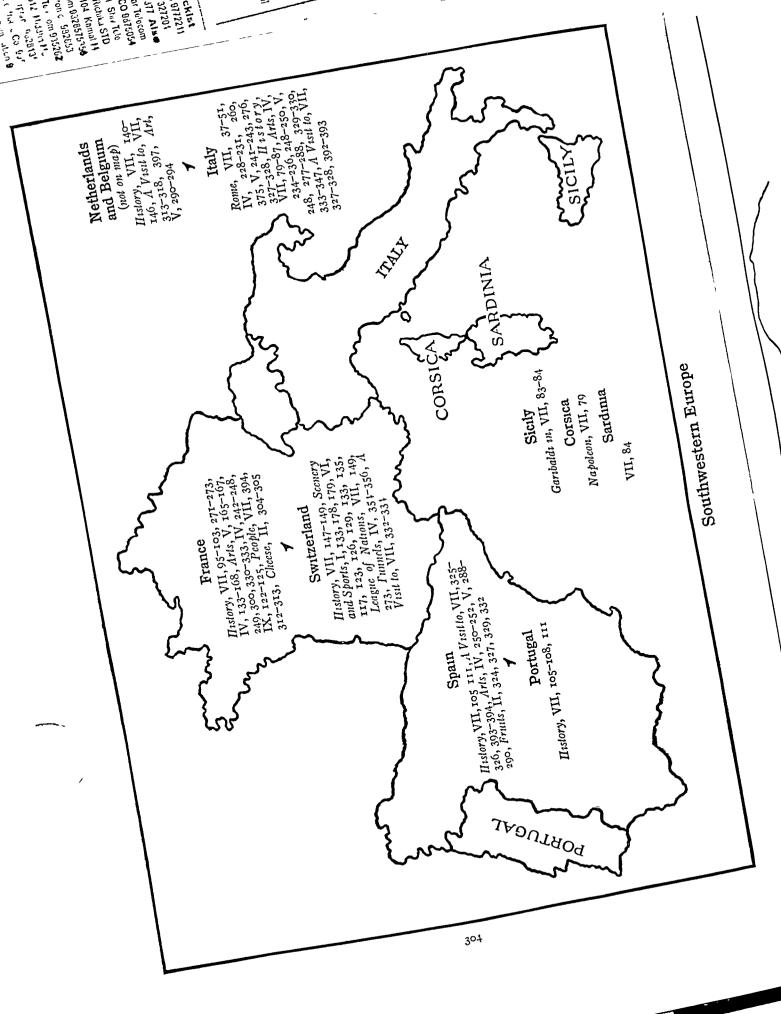


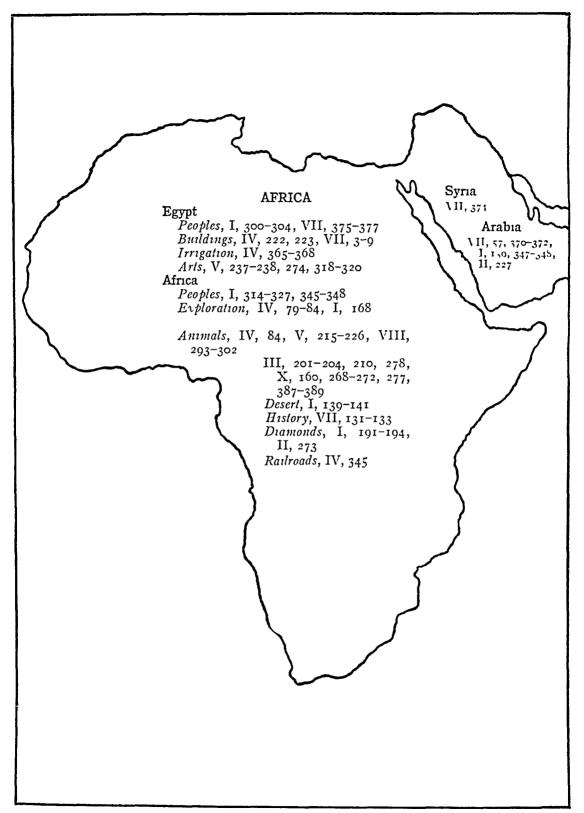












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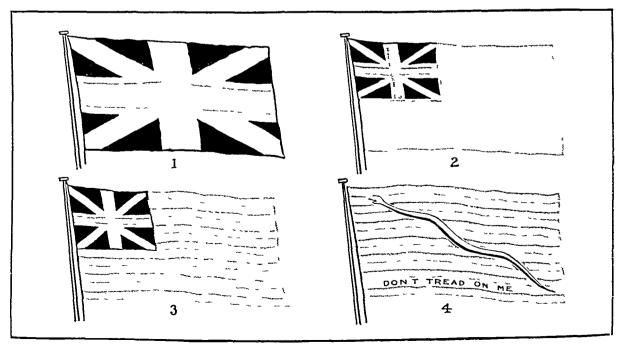
I PLEDGE allegiance to my flag", the words spring instantly to the lips of every American school child and the thought flashes through the mind of every American citizen whenever and wherever the Stars and Stripes are flung out. For this is

"Your flag and my flag!
And oh, how much it holds —
Your land and my land
Secure within its folds!"

A flag is a symbol, a national flag the symbol of patriotism. It is the good fortune of the United States to have for its emblem a flag in which to natural patriotic appeal is added a historic and prophetic significance. For our flag is not a finished emblem handed down from a long-outlived past. Like the Republic it sprang into existence to meet a need, like the Republic it is and always will be in the process of making, "the symbol of all we are and of all we hope to be"

Our English colonies started their existence under the flags of their day the English red cross of St George upon a white ground, and the "king's colors' of 1606 in which with the red cross of St George was combined the white diagonal cross of St Andrew, the emblem of Scotland (Fig 1) This and the British ensign, adopted by the Union parliament of 1707, a red flag with the "king's colors' in the upper left-hand corner (Fig 2), was the flag of our colonial days, differing from the present Union Jack by the absence of the diagonal cross of St Patrick As one colony after another grew restive under British rule, patriotic symbols began to appear until in Revolutionary days there were as many flags as there were colonies, the two most popular being the rattlesnake of South Carolina and the pine tree of Massachusetts, the latter with the words "An Appeal to Heaven'

When in the fall of 1775 English troops were being besieged in Boston by Washington and his army, the need of a flag for the uniting colonies was felt. General Washington writes of the hoisting of what is now known as the



\*From Your Flag and My Flag," by Wilbur D Nesbit

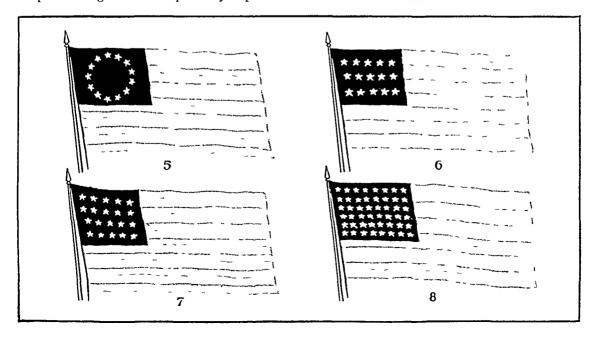
Grand Union flag (Fig 3) "in compliment to the United Colonies, on the day which gave being to the new army" It is commonly supposed that this flag was planned in consultation with a committee, headed by Benjamin Franklin, which had been sent by Congress to confer with Washington on matters of state This flag retained the Union Tack of the British ensign, but introduced the stripes representing the thirteen colonies As the Revolution progressed the Union Tack came to be regarded as a sign of submission, and the rattlesnake, sponsored by Benjamin Franklin in his Gazette as 1 most appropriate symbol for the united colonies, became increasingly popular A typical flag of this period has the stripes without the Union Jack, their significance interpreted by the rattlesnake lying across them and the ominous words, "Don't tread on me" (Fig 4)

The United States found a better symbol in the thirteen stars, "representing a new constellation," white stars on a blue ground, combined with the thirteen stripes, alternate red and white, which Congress adopted on June 14, 1777, as our national flag (Fig 5) "We take the star from Heaven," declared Washington, "the red from our mother country, separating it by white stripes, thus showing that we have separated from her, and the white stripes shall go down to posterity represent-

ing liberty" This is often called the Betsy Ross flag from the familiar story of the actual fashioning by Betsy Ross of a flag combining these elements. It was the flag of the nation until the admission of Vermont and Kentucky increased the number of both stars and stripes to To it Francis Scott Key wrote fifteen (Γιg 6) "The Star-Spangled Banner" As new states were admitted to the Union it was seen that it would be inexpedient to make such a ridical and conspicuous change in a national emblem as would be involved in the frequent increase of the number of both stars and stripes. Congress voted therefore in 1818 that the number of stripes be limited to thirteen seven red and six white, representing the thirteen original states, and that the number of stars be twenty, the number of states at that time in the Union (Fig. 7), the additional provision being made "that on the admission of every new state into the Union, one star be added to the union of the flag " Under this ruling the number of stars has been increased to forty-eight (Fig. 8)

This is the story of our flag as it embodies our past in the stripes, our present and our future in the stars, the story of

"Your flag and my flag —
And how it flies to-day
In your land and my land
And half a world away!"



# OUR NATIONAL SONGS

#### AMERICA

"America," written in 1832 by Dr Samuel  $\Gamma$  Smith, was an outgrowth of an effort to introduce good music into the public schools. It was first used at a children's celebration in Boston. The music is practically the same as that of the English national song, "God Save the King"

MY country! 't is of thee, Sweet land of liberty, Of thee I sing, Land where my fathers died! Land of the Pilgrims' pride! From every mountain side Let freedom ring!

My native country, thee, —
Land of the noble free —
Thy name I love,
I love thy rocks and rills,
Thy woods and templed hills
My heart with rapture thrills
Like that above

Let music swell the breeze,
And ring from all the trees
Sweet freedom's song
Let mortal tongues awake,
Let all that breathe partake,
Let rocks their silence break,
The sound prolong

Our fathers' God! to Thee, Author of liberty, To Thee we sing Long may our land be bright With freedom's holy light, Protect us by Thy might, Great God, our King!

## THE STAR-SPANGLED BANNER

Francis Scott Key, pacing the deck of the captive Minden during the bombardment of Fort McHenry by the British fleet on the night of September 13, 1814, wrote his tribute to the Star-Spangled Banner flying over the fort and fitted it to the melody of "The President's March," in eighteenth century English song

O SAY, can you see, by the dawn's early light, What so proudly we hailed, at the twilight's last gleaming?

Whose broad stripes and bright stars, through the perilous fight,

O'er the ramparts we watched, were so gallantly streaming,

And the rocket's red glare, the bombs bursting in air, Gave proof through the night that our flag was still there

O say, does that Star-Spangled Banner yet wave O'er the land of the free and the home of the brave?

On the shore, dimly seen through the mists of the deep,

Where the foe's haughty host in dread silence reposes,

What is that which the breeze, o'er the towering steep,

As it fitfully blows, now conceals, now discloses? Now it catches the gleam of the morning's first beam.

In full glory reflected now shines in the stream 'T is the Star-Spangled Banner, O, long may it wave O'er the land of the free and the home of the brave!

And where are the foes who so vauntingly swore That the havoc of war, and the battle's confusion,

A home and a country should leave us no more?

Their blood has weeked out their foul footsteps

Their blood has washed out their foul footsteps' pollution

No refuge could save the hireling and slave From the terror of flight, or the gloom of the

And the Star-Spangled Banner in triumph doth wave

O'er the land of the free and the home of the brave!

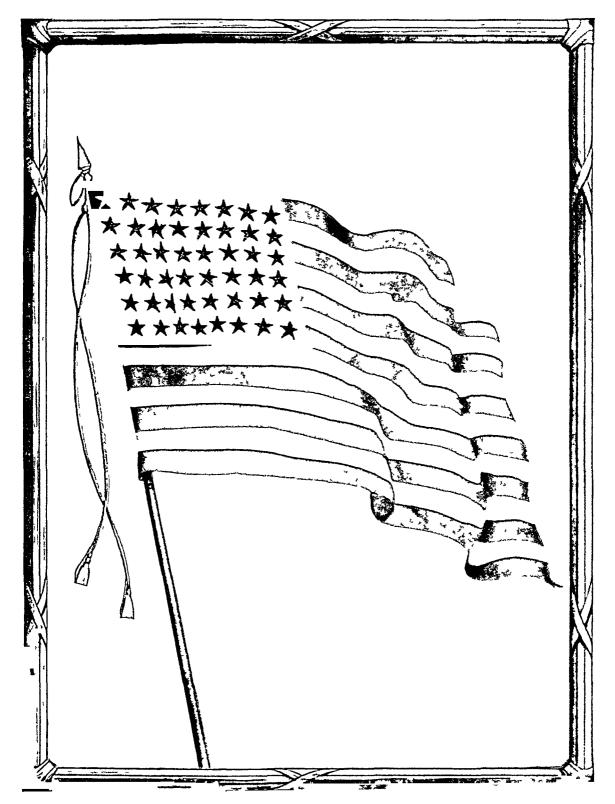
O thus be it ever, when freemen shall stand Between their loved homes and the war's desolation,

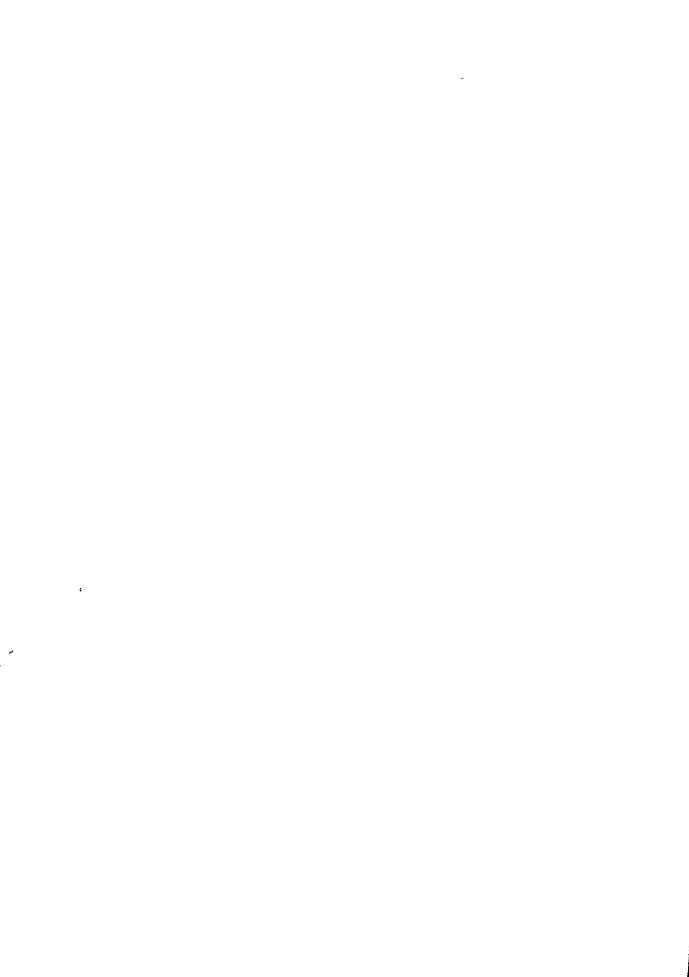
Blest with victory and peace, may the heav'n rescued land

Praise the Power that hath made and preserved us a nation!

Then conquer we must, when our cause it is just, And this be our motto, "In God is our trust", And the Star-Spangled Banner in triumph shall

O'er the land of the free and the home of the braye!





# **BIOGRAPHY INDEX**

A Fact index, supplementary to the General Index, giving names of persons mentioned in The New Worder World concerning whom the reader may wish more detailed or correlated information than is clear here as embled See also General Index

Adams, John (1735-1826), the second president of the United States Was a member of the Continental Congress from 1774 to 1778 and also a member of the committee which drafted the Declaration of Independence Vol VII, 185, 195, 219

VII, 202

Adams, Samuel (1722-1803), Massachusetts patriot and statesman, second cousin of John Adams, the elder Had great influence in shaping public opinion against the oppressive taxes of George III, and in urging separation of the colonies from England A delegate to the Continental Congress, 1774 to 1781, one of the signers of the Declaration of Independence, lieutenant-governor of Massachusetts, 1780

to 1794, governor, 1794 to 1797 Vol VII, 183, 197 Addison, Joseph (1672-1719), English essayist and statesman, co author with Richard Steele of the Spectator Papers, of which Sir Roger de Coverley is

the leading character Vol VII, 149

Adelborg, Eva Ottilia (1855-1936), Swedish illustrator

Adelborg, Eva Ottmia (1955–1930), Swedish mustrator and writer See "Clean Peter and the Children of Grubbylea," Vol IX, 164–167

Eschylus (B C 525–456), the founder of the Greek drama, and one of the greatest dramatists of all time With Sophocles and Luripides, one of "the great triumvirate" of Greek poets Wrote of gods and heroes in lofty, religious tone, emphasizing the sternness of destiny, and stimulating his country-men to heroic deeds Vol VII, 32

Æsop, the writer of our familiar fables, is believed to have have from about B C 620 to 560. He was a slave in Athens who was so wise that he helped his master out of difficulties and in this way won his freedom His wisdom made him famous through out Greece Vol V, 2 Tables Vol I 230, V, 2-0

Alaric (376-410), king of the Visigoths Invaded Greece in 306, captured and sicked Rome in 410

Vol VII, 49-51 Picture, Vol VII, 50 Agassiz, Jean Louis (1807-1873), Swiss American that glaciers once covered the entire earth I, 272 Portrait, I, 272

Albert I (1875-1934), king of the Belgians, a gallant leader of his country during the World War and afterward Vol VII, 146

Alcibiades (B C 450-404), Athenian politician and general, the pupil and friend of Socrates Read of his career as now the friend and now the foe of Athens in Vol VII, 33-34 Alcock, John (1802-1010) English aviator who with

Lieutenant Brown made the first non stop trans atlantic flight from Newfoundland to Ireland in 1919 Vol II, 116

Alcott, Louisa May (1833-1888) This most loved writer of children's books was born in Germantown This most loved Pennsylvania Most of her childhood and cirlhood was spent in Concord, Massachusetts Little Women," probably one of the most popular carlbooks ever written, described the fun which the M cott children had together During the Civil War she served as a nurse in Georgetown D C \ol \, 372-374, selection "Scrapes," VIII, 235--,1,
Orchard House (picture), VIII, facing 235 Portrait, Vol 1, 373

Aldin, Cecil (1870-1035), Linglish illustrator As a young man he studied anatomy and animal painting See his story of "The Twins" with its fascinating dog pictures Vol IV, 02-93
Aldus Manutius (1450-1515), early Venetian printer

the first of a family of printers and the founder of

the Aldine Press Vol II, 9

Alexander the Great (BC 356-323) line of Mace doma, conqueror of Asia Minor Persia and por tions of northern India. In order to make a great unified empire he organized the governments of the states which he conquered into democracies under his own officers Vol VII, 35-36, II, 257, 349, 334 IV, 30

Alfred the Great (8402-001), the early Saxon ling who drove the Danes out of England Under his direc tion the "Saxon Chronicle" which gave the early history of Ingland was written. He also truns lated books into English so that all the people might This chronicle and the translations saved the English language for all time Vol V, 266

383

Allen, Ethan (1737-1780), noted American officer in the American Revolution Became head of the "Green Mountain Boys" noted for their valiant service in the war, especially at Ticonderogal v here Allen commanded the British to surrender in the name of the Great Jehovah and the Continental Congress" Held as a prisoner of the British Vien's Captivity," an important record of the Revolution Vol VII, 188

Ambrose, Saint (2407-207) bishop of Milan one of the great church fathers, a statesman and theologian who is mentioned in our books because of his con

tribution to church music Vol V 242

Ampere, Andre Marie (1775-18,6) I rench physicist The "ampere" used to designate the unit of strength of an electrical current is named after him. Vol. **\ III 6**\$

Amundsen, Roald (1872-1028) Norvegian explorer of polar regions. Lirst to reach the South Pole in 1911 Vol IV 58 6.-63, 204, 205 P et ire of tent, IV, 55 Portra ' IV, 57

Andersen, Hans Christian (1805-1875) Danish writer of fairy tales which have been translated into many languages Vol V, 10, 361-362 Stories, Vol V, Portrait, V, 10

Andrée, Salomon August (1854-1807), Swedish engineer and explorer He lost his life in attempting to reach the North Pole in his balloon Vol II,

120-121 (pict tre), IV, 56 58

Andrews, Roy Chapman (1884- ), American scientist and explorer He has made particularly ), American

valuable discoveries in his expeditions to little-known regions of Asia. Vol IV, 53

Antony, Marc (Marcus Antonius) (about B C 83-30), a Roman statesman orator, and general A kinsman and friend of Julius Crear (Read in (Read in Shakespeare's play, Iulius Casar, Marc Antony's funeral oration over the body of Cresar ) Octavius Lepidus and Antony the "Second Triumvirate brought Rome and its distant possessions under their rule Defeated by Octavius at the Battle of Actium, B C 31, he followed Cleopatra to Egypt, where he took his own life Vol VII 45

Appert, François ( -1840), Frenchman who discovered way in which food could be preserved. See

1 ol II, 201, 376

Appleseed, Johnny (1775?-1847), a unique missionary (real name John Chapman) "who made Ohio a great apple country" Born in Boston, later moved to Marietta, Ohio Journeved over Ohio distributing apple seeds planting orchards, always carried his Bible and literature about the teaching of Sweden Had the confidence of both settlers and Indians The "Jonathan' apple said to have been named for him Vol VIII 76-80

Archimedes (BC 2872-212), early Greek mathe-

matician famous for his practical inventions

265, II, 5 14 35-36, IV 366 Picture Vol I 263
Archytas of Tarentum (B C 4282-347) Greek scientist a great mathematical scholar He is supposed to have invented a wooden dove which would fly by mechanical means Vol II, 117

Aristotle (B C 384-322) one of the most famous of Greek philosophers and scientists Vol I, 60, 264-265, IV, 2, VII, 77 Picture, Vol I 263 Arkwright, Richard (1732-1702) Sir English in-

ventor of the roller spinner and founder of the first cotton mill at Nottingham England Vol II 17

Portrait II, 18

Arnold, Benedict (1741-1801) an American general in the Revolutionary War Served his country gallantly (deciding the victory at second Battle of Saratoga) but in the end betraved her Read in Gamaliel Bradford's biography Wives" of Benedict Arnold's wife, Margaret, and of himself Vol

VII 188 191 102
Arnold, Henry H (1880- ) U S General and Chief of U S Army Air Forces in World War II ) US General and

P cture, Vol IV 160 tila ( ?-453) king of the Huns (433-453) and

invader of Europe Vol VII, 51

Audubon, John James (1780 or 1785-1851), American naturalist, whose great work, "The Birds of America," contains 435 hand-colored plates with over a thousand life-sized figures of 489 supposedly distinct species of birds A pioneer in reproducing birds in their natural poses Born in Santo Domingo now Huti, the son of a French naval officer, Audubon made the United States his adopted home Vol II, 384

Augustine, Saint (died about 604-613), surnamed "The Apostle to the Anglo-Savons," was a Benedictine monk, sent by Pope Gregory I in 597 to England Aethelbert, king of Kent, allowed Augustine and his fellow monks to settle at Canterbury This king, after his conversion helped Augustine to establish Christianity in England This Saint Augustine, founder of the Christian Church in southern England, should not be confused with Saint Augustine (354-430), the celebrated father of

the Latin Church, who wrote the famous "Confessions" and the "City of God" Vol VII 64

Augustus Cæsar (B C 63-A D 14), first Roman emperor, real name, Gaius Cæsar Octavianus, given title of Augustus by Roman Senate, B C 27, in recognition of his great service to the state Civilization was preserved for more than two centuries as r result of his reign Vol II, 220, VII, 45-48

Aurelian, Lucius (212<sup>3</sup>-275), Roman emperor from

270 to 275 Vol II, 257

Austen, Jane (1775-1817), a writer of novels Her greatest talent lay in describing the every day life of the English countryside Vol V, 304

Bach, Johann Sebastian (1685-1750), German com poser one of the greatest masters of music Vol V, 251 255-256, II, 12 Portrait, Vol V, 257.

Bacon, Francis (1561-1626), English statesman, writer of essays, and philosopher Lord Chancellor An original thinker who under King James I covered a wide range of subjects in his writings Portrait Vol VIII, 231

Bacon, Josephine Daskam (1876-), American ruthor of stories and verse See "The Sleepy Song," ), American

**\ol IX, 6** 

Bacon, Roger (1214-1204), English philosopher and scientist who was a member of the Franciscan order His writings show him to have been one of the advanced thinkers of the early Middle Ages, swinging free of traditional beliefs and testing dis coveries and theories by the experimental method of Many of his scientific speculations have been proved true, or partially true in recent centuries (You will find him as one of the characters in "Magic Gold," by Marion Lansing) (Vol II,

138, VI, 327 Baden-Powell, Robert Stephenson Smyth (1857-1041), Sir, founder of the Boy Scout organization 1008 1 British general who saw service in India Afghanistan and Africa In 1010, in cooperation with his sister Miss Agnes Baden-Powell, ne founded the Girl Guides, later called in the United States the Girl Scouts See Vol VI, 186, 212

Baker, Samuel (1821–1803), Sir English explorer of strange far-away places His books describing his experiences are fascinating. One chapter from "Cast Up by the Sea" is given under the title Ned

in Ifrica Vol VIII, 293-302 Also, IV, 02 Balboa, Vasco Núñez de (1475?-1517), Sprinsh adventurer and discoverer of the Pacific Ocean In 1501 followed Rodrigo de Bastidas in a voyage of dramatic life as an explorer, read Vol IV, 37-38, VII, 107 Puture, Vol IV, 38

Balchen, Bernt, Avantor, accompanied Admiral Burd as pilot on transatlantic and south polar flights Vol II,

116, IV, 209, 211,

"Barbarossa," Frederick (11237-1190), a famous German king, Frederick I, called "Barbarossa" or "Redbeard" by the Italians whose country he tried to subjugate in five expeditions, covering thirty years Took part in two crusades Emperor of Holy Roman Empire (1155-89) Vol VII, 61, 62 Picture, VII, 63

Barrie, James Matthew (1860-1937), Sir, an English novelist and dramatist. In all his writing he gave the comedy and pathos of life Vol VIII, 90-04

Portrait, Vol. VIII, 90

Barton, Clara (1821-1912), American woman famous for her services to the wounded in the Civil War Through her efforts the American branch of the Red Cross was organized in 1881 Vol IX, 361-362

Bayard, Pierre du Terrail Chevalier de (1473-1524), 1 I rench knight, who on account of his fearlessness, kindness, and knightly character was called "Le bon chevalier" Vol VII, 95-96

Baynes, Ernest Harold (1868–1925), born in Calcutta, came to England when he was two years old and to the United States when he was about twelve His great interest in birds and beasts is shown in his stories Read "A Fox Cub as a House Guest,"
"Jimmie, the Story of a Black Bear Cub," "Allenby's Transport Camels," Vol V, 209-211, 212-214,

Beard, Daniel Carter (1850-1941), American naturalist, author, and artist He founded the first Boy Scouts' Society in the United States and later became national commissioner for the Boy Scouts of

America

Becquerel, Antoine Henri (1852-1008), French scientist who in 1806 discovered in uranium radioactive properties Professor and Mme Curie followed his work with their further discoveries In 1903 the Nobel prize for physics was divided between Becquerel and the Curies Vol II 160

Bede (672 or 673-735), known as "the Venerable Bede" He wrote beautiful historical prose in the

early days of England Vol V, 382-383

Beebe, Charles William (1877naturalist and writer. He has gone to far away places on his scientific expeditions and made many strange and interesting discoveries about plants and

animals Vol X, 17, 272-273
Beecher, Henry Ward (1813-1887), great American preacher As the minister of the Plymouth Congregational Church in Brooklyn, New York his influence was widespread See one of his brief nature

stories, Vol IX, 125

Beethoven, Ludwig van (1770-1827), noted German composer of music Vol V, 256, I, 354, II, 12

Porîrait, Vol V, 257

Bell, Alexander Graham (1847-1922), Scottish-American inventor and teacher. Invented the telephone See Vol II, 76, 167 (picture), 174-176 Portrait, Vol II, 175

Bellows, George Wesley (1882-1025), American artist, born in Columbus, Ohio, educated at Ohio State University His work recognized for its excellence of composition and its richness of color His picture, "Emma and Her Children' is in the Boston Museum of Fine Arts, "Portrait of My Mother" is in the Chicago Art Institute, "Polo Game" is in the Columbus Gallery of Fine Arts, and "Up the Hudson" in the Metropolitan Museum, New York City Vol V, 307, 308, picture of "Lady Jean," 307

Benedict, Saint (4807-5437) a mont of noble charac ter and of great influence whose 'Rule 's ritten by him for the monks of his own monastery laid the foundation for the famous Benedictine order monastery which he established on the summit of a mountain at Cassino between Rome and Naples was for centuries the chief center of reheious life in western Europe Vol VII, 65 Bennett, Floyd (1801-1028) American winter, pilot

with Commander Richard Bard when he flex to the North Pole in 1926 In 1928 he made a recue flight to the aid of the bremen which had crashed on Greenely Island Laposure at this time caused his illness and death Vol. II, 116, IV, 206-207

Bergson, Henri Louis (1850-1041), I rench philoso pher, teacher, and author of the twentieth century Vol X, 100, 267 Berlanga, Tomas de, Reverend Father, Spanish mis

sionary in Santo Domingo and Panama. He is supposed to have brought roots of binani plints from the Canary Islands to the New World in 1516

Vol II, 329
Bernard, Claude (1813-1878), I rench physician who made important discoveries about the process of digestion. Vol. II. 378. Picture. Vol. II. 370. Bessemer, Henry (1813-1808). I nelish engineer and

Author of many inventions but chiefly inventor known for his Bessemer process for the manufacture of steel, which has proved of tremendous importance to industry because it has greatly charpened the price of steel Bessemer was knighted in 1870 Vol I, 180, II, 190-200, IV 253 Bismarck, Otto, Prince von (1813-1808) Germin

statesman, through his stern policy as chancellor under William I, laid the foundation of the German Empire, in which he give Prussia a commanding position Vol VII 92 93, VIII St 84

Blackmore, Richard Doddridge (1825-1000) an Inslish novelist He is best known for his fascinating novel, "Lorna Doone" See selection in Vol. VIII

332-341

Blackwell, Elizabeth (1821-1910) the first woman in the United States to receive the degree of M D Was graduated from the medical class at Geneva N Y, in 1849 Triumphed over great difficulties See interesting account of her life, Vol VIII, 62-66 Portrait, Vol VIII, 62 Blaine, James G (1830-1803) American political

leader, who served as congressman U.S. senator and twice as secretary of state. As Republican nominee for the Presidency he was defeated by a

close vote See Vol VII, 257,

Blake, Lyman P, Massachusetts cobbler who invented in 1858, a machine for stitching the soles of shoes to

the upper parts Vol II, 26

Blériot, Louis, Trench aviator who in 1000 achieved world fame by making the first flight acros the Lightsh channel in his monoplane. The di cance of twenty miles was covered in twenty minute- Vol. II, 116, 131

Bok, Edward William (186,-10,0) American ariter and editor, who was born in Holland but came to this country when he was six years old. He is es pecially known for his book. 'The Americanization of Ldward Bok." Vol. VIII. S1-S4, IV, 226 Portrait Vol VIII, 83

Bolivar, Simon (1783-1830) South American soldier and statesman leader of the revolution against Spanish dominion which resulted in the formation

Bolivar, Simon - Continued

of the independent states of Venezuela, Colombia, Ecuador, Panama, Peru, and Bolivia See Vol VII, 110, 111, 282 Portrait statue, Vol VII, 110

Boniface, Saint (Winfred) (680?-755), a Savon ecclesiastic and missionary who became the Apostle of Germany through his great work in converting heathen tribes and establishing the Christian church in this country His powers as a missionary and an organizer left a permanent influence upon Germany through the Middle Ages Vol VII, 64

Boone, Daniel (1735-1820), famous American pioneer He explored the state of Kentucky when it was still known as the "dark and bloody ground," helped to establish border posts, and was a leader in the struggles against the Indians Vol VII, 231

Portrait, Vol VII, facing 231

Borrow, George Henry (1803-1881), English author In his young manhood he tramped over England and then later wandered about Europe He drew upon his own adventures when he wrote his interesting stories of gypsy life Vol I, 347

Bottger, Johann Friedrich (1682-1719), German chemist who discovered how to make glazed white porcelain which was the beginning of the beautiful

Dresden china See Vol II, 230,

Botticelli, Sandro (1444 or 1447?-1510), Italian painter, whose real name was Alessandro Filipepi The only contemporary whom Leonardo da Vinci mentions in his treatise on painting. As a youth studied under Fra Filippo Lippi, became the teacher of the latter's son, I'llippino Lippi Painted madonnas and classical subjects with spiritual in-

sight and charm See his picture, "The Allegory of Spring" Vol V, 282

Bradford, William (1590-1657), second governor of the Plymouth Colony, and its historian Succeeded Governor John Carver, served in this office from April 1621, with the exception of five years, until shortly before his death - over thirty years As a youth in England joined the Separatists, was imprisoned for a short time, emigrated to Holland, from whence he sailed in the Mayflower for America,

1620 Vol VII, 163, 168, 170, 179

Brahe, Tycho (1546–1601), a leading astronomer of Denmark Vol I, 61, 62 Portrait, Vol I, 60

Brahms, Johannes (1833-1897), German composer of music Vol V, 247, 258, Vol IX, 225
Bronte, Charlotte (1816-1855), Emily (1818-1848), and Anne (1820-1849), English novelists The three sisters, particularly Charlotte and Emily, are famous for the great individuality of their writing

Vol V 398 Brooke, Leslie (1862-1940), English painter of watercolor landscapes and portraits in oil and chalk His fascinating black-and-white illustrations are found in many children's books See the illustra-tions for "The Three Bears," "The Three Little Pigs," "Tom Thumb," "The Owl and the Pussy-Cat," "The Jumbles," Vol IX, 36-39, 40-42, 79,

Brown, A. W., aviator who with Captain Alcock flew from Newfoundland to Ireland in 1919

Brown, John (1810-1882), a Scottish author and physician, who is remembered particularly for his book, "Rab and His Friends" See a selection from it in Vol VIII, 266-273

Browning, Elizabeth Barrett (1806-1861), an English poet, who married the poet Robert Browning See Vol V, 404 Portrait, Vol V, 401 Browning, Robert (1812-1889), English poet, whose

writings show deep thought and cover an enormous variety of subjects Vol V, 404 See also his poem, "The Pied Piper of Hamelin," Vol IX, 348-350 Portrait. Vol V, 401

Brutus, Marcus Junius (B C 85-42), Roman patriot and scholar As one of the assassins of Cæsar, he was banished from Rome and joined with Cassius in Asia Minor in 42 against Octavius and Antony, where, when defeated, he took his own life (Read Shakespeare's Julius Casar for insight into the character of Brutus) Vol VII, 45

Bryan, William Jennings (1860-1925), American political leader and orator Defeated three times as a candidate for the Presidency, but leader of Democratic Party for thirty years Championed cause of "Tree Silver" Vol VII, 266

Bryant, William Cullen (1794-1878), the first distinguished poet of America He is best known for his beautiful, thoughtful poems about nature Vol V, 406 Portrait, Vol V, 407 Bull, Charles Livingston (1874-1932), American illus-

trator who is known for his bird and animal drawings Because he knew so much about the habits of wild animals he may be called a naturalist. See his picture, "Tiger Emerging from the Jungle," Vol X, fac-

Bulwer-Lytton, Edward (1803-1873), English author of novels and politician He was made a baron in His mother's name had been Lytton and when he succeeded to her estates a few years later, he added the name "Lytton" to his own surname Thereafter he was known as Edward Bulwer-Lyt-

ton Vol V, 395–396 Bunsen, Robert Wilhelm E (1811–1899), a noted German chemist who invented the "Bunsen burner,"
"Bunsen pump," "Bunsen batter,," and made researches in spectrum analysis (with Kirchhoff, 1860) Discovered the cruse of geysers See "Hot

Springs and Geysers," Vol I, 124-127

Bunyan, John (1628-1688), English writer, who is famous for his "Pilgrim's Progress," which he wrote while he was in prison Vol I, 346, V, 390

Burbank, Luther (1849-1926), American naturalist Figure 1949 1949, Interest in accordance Figure 1949, Interest in

Vol VIII, 97
Burgoyne, John (1722-1792), English general who fought in the American Revolutionary War

Burns, Robert (1759-1796), probably the greatest of Scottish poets He loved to write of nature and of the simple country people Vol V, 392, Portraits, Vol V, 392, VIII, facing 207

Burr, Aaron (1756-1836), Vice-President of the United States (1801-05), in Jefferson's first term Indicted for treason, acquitted, spent remainder of long life in obscurity Vol VII, 218

Burroughs, John (1837-1921), American naturalist

and writer of books about the beautiful out-of-doors In his earlier life he taught school, worked on a newspaper, farmed, and served as a clerk in the treasury department at Washington His books and poems about nature made him famous and beloved See quotations from his works in Vol III, 6, X, 266-267 Portrait, Vol III, 297

Bushnell, David (1742-1824), American who built a one-man submarine during the Revolutionary War

See Vol IV, 311

ord, Richard (1888-), officer of the United States navy and famous for acronautic explora-Byrd, Richard (1888-He flew over the North Pole in 1926 and over the South Pole in 1929 Vol II, 84, 116, IV, 202-214 (pictures), VII, 382

Byron, George Gordon (1788-1824), English poet Tamous for the brilliancy of his poetry Vol V,

402, VII, 148, 156

Cabot, John (1451?-1498?), Venetian explorer, in English service Real name, Giovanni Caboto Discoverer of mainland of North America, planted English flag probably somewhere on coast of I abra For 200 years English based their claim to mainland of North America on Cabot's discovery Vol IV, 43, VII, 124

Cabot, Sebastian (1472?-1557), explorer, second son of John Calot Invited by Charles V to Spain, made grand pilot of Castille, commanded expedi tion to South America, 1525, remained in service of Spain till 1546, when he returned to England

Vol IV, 43

Caedmon (about 670), believed to be the earliest Christian poet of England Vol V, 381-383

Picture, Vol V, 383

Cæsar, Caius Julius (B C 100-44), Roman general, statesman, writer, born of patrician family that traced descent to Iulus, founder of Alba Longa son of Aneas His account of his "Gallic Wars" has been used as a textbook of the Latin language by generations of schoolboys \ol VII, 44-45, 47,

IV, 30 Portrait statue, VII, 44 Calhoun, John C (1782-1850), American statesman of South Carolina Graduated from Vale, 1801 Congressman, secretary of war in President Mon roe's Cabinet, Vice President of U S, 1825-32, U S senator, 1832-43, secretary of state under President Tyler, reducted to Senate Author of

doctrine of nullification Vol VII, 229-230

Portrait, Vol VII, 230

Campbell, Thomas (1777-1844), Scottish poet, editor, and writer of cssavs His best poems describe life in Scotland See his "Lord Ullin's Daughter," Vol VIII, 207-208

Carnegie, Andrew (1837-1919), Scottish American manufacturer and philanthropist See Vol VIII, 50-54, II, 59 Portrait, Vol VIII, 52

Carnot, Nicholas Leonard Sadı—(1796-1832), French physicist who made discoveries in regard to the nature of heat Vol II, 39, 378 Picture Vol II, 379

Carpaccio, Vittore (1450?-1522), Italian painter Vol V, 286-287 See his painting of "The Vision of St Ursula," V, 287, and of the "Angel with Lute," IA, 230

Carson, Christopher ("Kit") (1800-1868), American scout and Indian fighter who took part in exploring expeditions to the West and Southwest. His adventures on the frontier have provided material for many exciting stories. He became an agent to the Indians in New Mexico in 1854 and because of his knowledge of the Indian characteristics and lan gunge he was able to restrain many of the warlike tribes Vol VII, 237, VIII, 107-109 Portrait, Vol VIII 108

Cartier, Jacques (1404-1552?), French navigator and explorer, discoverer of the St. Invrence River Born at St. Malo, Brittany See Vol. IV, 13-14. VII, 124 Portrait, Vol IV 44

Cartwright, Edmund (1743-1823) I nglish clergyman who invented a power loom for weaving Vol II.

Carver, John (1575?-1621), first governor of Plym outh Colony Gave valiant service in helping his comrades settle in their new homes but died vithin a few months Previous to coming to America one of the Separatists who sought retuge in Holland about 1608 Vol VII 168 170 Catherine II (1720-1706), Catherine the Great em

press of Russia. During her reign the influence of Russia was extended far through I urope. She was also a patron of the arts at home. Vol. VII 1,7

Catherine de Medici (1510-1550) daughter of I orenzo II de Medici, wife of Henry II of Irance For many years dominated I rance and subjected it to intrigues, religious and political conflicts and frequent bloodshed. The instigation of the Massacre of St. Bartholomew is laid to her. During carly reign of her husband. Henry II. Catherine did not assert herself, after being made regent in 1552, she gradually assumed great power, and held this during the successive reigns of her sons. I rancis 

Cavour, Camillo di (1810-1861), a great statesman of

Italy See Vol VII, 82-93 Caxton, William (14222-1401) first English printer Learned in Cologne the art of printing, set up a printing press in Bruges, where his first bool i as printed in 1474 Returned to Ingland, established

himself there in 1476 Vol V, 380, II o
Cayley, George (1773-1857) Fightsh pioneer in axia
tion. He devised the filder, worked out the idea of the biplane, desig ed a dirigible balloon and experimented with other original ide is in aviation

\ol II 123

Cervantes Sarvedra, Miguel de (1517-1616) Spanish novelist. He wrote many novels, but his "Don Quivote" gave him rank with the greatest virters of the world Vol VIII, 392-308 Portra t Nol

VIII, 313 Champlain, Samuel de (1567-1635) French explorer of the New World, made first white settlement at Quebec, 1608, promoter of settlement in Canada and its first governor. His boxhood training in sea manship on the Bay of Biscay made him a skilled navigator. His maps and writings are valuable his torical source material See Vol VII, 12,-1 5, I, 155, IV, 50 (picture)

Champollion, Jean François (1700-1832), French scholar who worked out the secret of the I gyptian

writing or hieroglyphics Vol VII 6

Chanute, Octave (1832-1010) civil engineer Born in Paris came to the United States when he was six vears old. His experiments with gliders underlie much of the early worl of the Wright b others

Vol II, 124 125 Charlemagne, Charles the Great (74-2-91,) king of the Franks (768-814) and Emperor of the West He conquered the greater part of I urope and built up a strong well governed state Learning of all kinds was encouraged and under his direction churches, bridges and roads ere built See Vol VII 53-55 IV, 313 Perret Vol VII, 53

Charles I, Charles Stuart (1600-1640), of England, second son of James I Succeeded his father in 1625 and ruled until his execution January 30, 1640 His reign marked the culmination of the struggle between the "divine right of kings" and the rights of the people as represented by Parliament Vol VII, 115-118, 182 Portrait, Vol V, froi tispiece

Charles II (1630-1685) king of England from 1660 to 1685 The Civil War took place in his youth Following his father's execution he was proclaimed Ling of the Scots, defeated by Cromwell at Worcester, sought refuge in France After Cromwell's death, became king, this being the event known as the "Restoration" Vol VII, 118-110, 174

Chaucer, Geoffrey (13403-1400), probably the first great English poet His "Canterbury Tales" have been read and loved by every generation since his time Vol V, 384 Portrait, Vol VIII, 231 Cheops, the King of Egypt, during whose reign the great pyramid was built. This was probably about

BC 3700 Vol VII, 7

Chevalier, French optician who made lenses for the "camera obscura" early in the nineteenth century

Vol II, 145 Child. Lydia Maria (1802-1880), American author She edited the Jurci ile Monthly, which was the first children's monthly magazine in the United States See some of her verses in Vol IX, 119-120, 147

Chopin, Frederic (1800-1849), Polish pianist and

musical composer Vol V, 258
Churchill, Winston (1804- ), British statesman,
Hero of the Boer War Prime Minister of Great
Britain during World War II Vol VII, 278, 283 Picture, Vol VII, 277

Clark, George Rogers (1752-1818), American soldier and frontiersman, who, in 1777-1779 conquered the Northwest Territory between the Ohio River and the Great Lakes wresting this immense tract from

the hands of the British Vol VII, 232-233 Clark, William (1770-1838) American explorer who was second in command with Meriwether Lewis on the famous "Lewis and Clark" expedition across the country Vol VII, 222-224, I, 156, IV, 116-122 Portrait, Vol VII, 224

Clay, Henry (1777-1852) American statesman and orator Born in Virginia moved to Kentucky, 1708 Called "the Great Pacificator, ' because of his part in settling many disputed questions regarding slavery and the annexation of territory portrait, with that of Jackson and Webster his contemporaries, Vol VII, 228, read Vol VII, 210,

226 229 230, 240, 282
Clemens, Samuel L (1835-1010) American author known by his pen name "Mark Twain" His most famous books are those which picture life in the West and Southwest See Vol V 415-416 (with picture), VII 236, VIII, 20-23, "The Facts in the Case of the Great Beef Contract."

Cleopatra (B C 69-30) queen of Egypt, the last of the Ptolemies Became queen at seventeen, sharing throne with a younger brother By her beauti and fascination captivated Julius Casar and later, Marc Antony, whose political ally she became Vol \ II, 45

Cleveland, Grover (1837-1008), President of the United States, 1885-1880 1893-1897 Read the account of his life, Vol VII, 257-260 Portraits,

Vol VII, 259, 203

Chnton. Henry (1738?-1705), Sir, English general who fought in the American Revolution Vol VII, 105 Clotilda, of Burgundy (475°-545), Christian princess. wife of Clovis, king of the Franks She influenced her husband to become a Christian Vol VII, 53

Clovis I (465?-511), founder of the Frankish mon-Became king at sixteen, before his death had united all the Franks into one nation and had extended his Lingdom from the Rhine almost to the Roman power in Gaul began to give way to that of the Franks after victory of Clovis at the Battle of Soissons, 486 Gaul became France. from the name of its conquerors Vol VII, 53

Cody, William F (1846-1917), American scout and Indian fighter known as "Buffalo Bill" \ ol \ II,

Coleridge, Samuel Taylor (1772-1834), English poet With Wordsworth he published "Lyrical Ballads" in 1798 "The Ancient Mariner" was one of the four contributions of Coleridge Vol V, 400, IX, 160, III, 246, I, 208, 225 Columbus, Christopher (1436?-1506), explorer, fa-

mous for his voyages to the New World Vol I, 43

(ath picture), II, 21, 215, 275, IV, 1, 2, 10-18, 31, 33 (tith pictures), VII, 106, 124, 161, 290 Picture, \oldoldrel{1} \oldold purity of his life he is greatly revered in China and regarded as their greatest teacher. His precepts form a system of ethics known as Confucianism

widely practiced Vol I, 357-350, VII, 302, 321, 322 Conkling, Hilda (1910-), American youthful author of poems "The Old Bridge," "Tree-Toad,"

Vol V, 154 155
Constable, John (1776-1837) an English landscape printer Several of his printings "The Hav Wain," "The Cornfield," and 'The Valley Farm," picture scenes near his early home Vol V, 300

Constantine I, the Great (272-337) first of Roman emperors to be converted to Christianity, established this as official religion of the Empire His efforts at reform, including the more humane treatment of prisoners and slaves, show the influence of Christianity Made the power of the emperor more

absolute \ol \II 47, \, 277, II, 221 Coolidge, Calvin (1879-1933), American statesman and writer Vice-president of the United States,

1920-1923, President, 1923-1928 Portrait, Vol VII, 206

Cooper, James Fenimore (1789-1851), the first novelist in America to make use of American subjectmaterial Vol V, 404-405, VII, 227 Read "V Narrow Escape' from his "The Last of the Mo-hicans," Vol VIII, 275-280 Portrait, Vol VIII, 277 Copernicus, Nicholas (1473-1543), great Polish as-tronomer, famous for working out the theory that

the sun is the center of the universe about which the earth and other planets revolve Vol I, 6, 60,

265, VII, 74 Pictures, Vol I, 60, 263
Copley, John Singleton (1737-1815), born in Boston portrait painter in the United States before the Revolution Spent the latter part of his life in

England Vol V, 304
Cornwallis, Charles (1738-1805), British statesman and general, whose surrender to Washington at Yorktown brought the American Revolution to a dramatic close Governor-general of India twice Vol VII, 104, 105

Corot, Jean Baptiste Camille (1796-1875), French | landscape painter Corot was influenced by the Barbizon school and painted the French voods and fields with charm and harmony. Is said to have painted often from memory Vol V, 300 ("ith

painting, 271) Cortez (or Cortes), Hernando (1485-1547), Spanish conqueror of Mexico Added vast domain to Spin ish realm Vol IV, 39-41 (aith pictures), VII, 107, II, 346 Portrait, Vol IV, 30 ish realm

Coster, Lourens (13702-14402), Larly Duten printer who used movable type in printing his books Books from his press which have been preserved show that he probably did part of each page by block printing and part by the movable type Vol II, o Cowper, William (1731-1800), English poet

poems show his love of nature and of the people he saw about him See his 'The Diverting History of John Gilpin," Vol. VIII, 213-217

Crane, Walter (1845-1915), English artist and illus trator He did his first book illustrations when he was seventeen years old and soon after began to experiment with color and design in maling children's picture books. He will alvays be remembered as a leader in producing beautiful imaginative illustrations Make a study of his pictures in three volumes as follows \oldot ol V, 56-75, \oldot III, 198, 199, I\rangle, 10, 11, 44, 45, 61, 63, 64, 65, 67, 68, 69, 192, 193

Crassus, Lucius Licinius (B C 115<sup>2</sup>-53), a Roman financier of great wealth Formed, with Crestr and

Pompey, BC 60, the First Triumvirate Consul with Pompey, B C 70, and later in B C 55 While governor of Syria, invaded Parthia, his army destroyed, and Crassus himself put to death Vol

VII, 44

Cristofori, Bartolomeo, lived in the early eighteenth century, Italian inventor of the pinno Vol II, 12,

V, 254

Crockett, David (1786-18,6), American famous among the frontiersmen in the early days. He served as a member of the House of Representatives for six years, was lilled while helping to defend the Alamo in Texas Vol VII, 240

Cræsus (lived B C 560), king of Lydia At close of his reign had immense domain - from north and west coasts of Asia Minor to the Halvs on the east, and the Taurus on the south. His fabulous wealth gave rise to the phrase, 'as rich as Crœsus" Sce story of Crossus and Cyrus, Vol VII 17 Crompton, Samuel (1753-1827), Luglish inventor of

the mule jenny for making thread Vol II 18

Cromwell, Oliver (1599-1658), Lnglish general and 1 zealous Puritan and reformer who opposed King Charles I and the Royalists Lord Protector of the Commonwealth, 1033-1658 Vol VII, 115-119 (cith pictures) Portrait, Vol **VII,** 116

Crookes, William (1832-1910) Sir, English scientist whose investigations led to the discovery of X-rays

Vol II 147, 160, \(\chi, 316\) Portratt, Vol II, 146 Curie, Marie Sklodowska (1867-1954) Madame Curie was born in Warsaw Poland She studied physics under her father who was a professor there Later she went to Paris to continue her study Here she met Pierre Curie They were married and together carried on the research which enabled them to discover radium The Nobel Prize for physics was divided between them and Henri Becquerel in

After her husband's death Madarie Cure 1003 succeeded to his position as profes or at the Uni versity of Paris. In 1011 she was availed the Nobel prize for chemistry. Vol. II. 160 Priret \ol II, 161

Curie, Pierre (1850-1000) I rench scientist v lo with his wife (Marie Sklodov sla) discovered radium He became professor of physics at the University of Paris in 1904 Vol II 100 Pertrait Vol II 100 Curtiss, Glenn Hammond (1878-1050) Victoria

aviator and inventor of the hydroplane and the fly ing boat Builder of the Navy Curtis machine which was the first to fly across the Atlantic Vol II, 131, 135

Custer, George A (1830-1876), American soldier well known as a leader in the Indian wars \ \text{\text{ol}} \ \text{I\text{\text{ol}}}

123-125 ( ith picture)

Cuvier, Georges (1760-18, ), famous I reach scien See Vol I, 270 Picture Vol I .67

Cyrus the Great (about B C 5.0), founder of the Persian Empire Sec Vol VII, 15-17-18

Daguerre, Louis Jacques (1780-1851) I rench cene painter v ho perfected a process of permanent photography. Photographs taken by his process were named after him 'daguerreotypes'' See Vol

II, 144 145 Dalton, John (1766-1844) Inglish scientist laws developing the atomic theory have made hin

famous Vol I, 260 II, 38 Picture Vol II Daly, Thomas Augustine (1871- ), Ameri author Da I cetla Boy," Vol VIII 37

Dana, Richard Henry (1815-188), American author When he was about twenty years old he went to sea for two years. On this trip he collected the ma terial for his fascinating bool 'Tv o Years Before the Mast" I ater in his life he practice I law and took part in political affairs. Read 'Heavy Weather' from Two Years Before the Mast, Vol VIII, 285-200

Dante Alighieri (1-65-1321) Italian poet He lived in Horence for the greater part of his lite and tool part in the political affairs of his city. His long poem, 'Divina Commedia' gave him a place among the few greatest poets of the world

VII 74 Dare, Virginia (1587-2 are, Virginia (1587-7) ) first child born of English parents in America Vol VII 164

Darius the Great (B C 5582-4862), Per-inn ling statesman and organizer of the vast realm conquered by him. His inscriptions furnish source of informa tion about his reign. Considered one of the greate villers of the Last Vol VII of IN 207-308

Darius the Third (killed BC July 5,0) Persia Link A great warmer's he resisted the advance of Alex ander at the Battles of Issus and Arbela VII 5-50

Darwin, Charles (1800-1882) I ngli h scienti t. He made great and original contributions to the body of scientific I nov ledge Vol II 377-379 5,- 8 Pictire Vol II 57

David, ruler of the Hebrev tribes of Judah and Is a ! from about 1010 to B.C. 070 Pecause of his ability as a varnor and a state-man he vas able to e tab lish a strong united kingdom. Vol. VII. 15. IX

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Davis, Jefferson (1808-1880) President of the Con federate States of America Served in the Merican Davis, Jefferson - Continued

War, 1846-47, represented Mississippi, both as congressman and as senator, secretary of war, 1853-57 Inaugurated president of the Confederacy, under its "permanent constitution," at Richmond, February 22, 1862 Imprisoned at Fort mond, February 22, 1862 Imprisoned at Fort Monroe, 1865-67, his amnesty proclaimed, Decem-ber 25, 1868 Developed system of government between master and his slaves Wrote "Rise and Fill of the Confederate Government "Vol VII, 244, 268

Davy, Humphry (1778-1829), Sir, English scientist He studied electricity and constructed the first arc

light Vol II, 38, 71, 196, VIII, 67-69 Daye, Stephen (1594<sup>5</sup>-1668), English printer brought the first printing press to America from England This press was set up in Cambridge, Massachusetts, in 1638 Picture, Vol II, 10

Defoe, Daniel (1659° or 1661?–1731), English writer Famous for his "Life and Adventures of Robinson Crusoe" See Vol V, 393, VIII, 389-391 (with

pictures)

Degas, Hilaire Germain Edgard (1834-1017), French

Vol V, 302 painter

De Grasse, François Joseph Paul (1723-1788), Count. French admiral, whose fleet helped Washington at Yorktown Vol VII, 195

De Kalb, Johann (1721-1780), Baron German soldier who helped drill the Continental army early in the Revolutionary War Vol VII 192 German

De Laval. Gustaf (1845-1913), Swedish inventor of a successful steam turbine He also invented a continuous centrifugal cream separator which has been used all over the world Vol II, 52, 53

Della Robbia, Andrea (1435-1525) nephew and pupil of Luca Della Robbin, specialized in enimeled reliefs, notably the "Bambini" on the Foundling Hospital in Florence See Vol V, 341-342 (with

picture)

Della Robbia, Luca (1388? or 1398?-1482), Florentine, one of the most famous sculptors of the fifteenth century See Vol V, 230, 242, 243, and 339 for his "Singing Gallery," (with pictures)

Democritus (B C 460?-362?), early Greek scientist

who worked out a logical explanation of the uni-Vol I 56, 260-261 Picture, Vol I 259

Descartes, René (1506-1650), French scientist showed the importance of basing every theory on Vol I, 267 (with picture)

De Vick (14th century) of Wurttemberg who built 2 clock for Charles V of France in 1,79 This clock

was still running in 1750 \ol II, 7

Dewey, George (1837-1917), Admiral, American naval officer who won a victory at Manila during the Spanish War Vol VII, 260-261, 264-265

Dickens, Charles (1812-1870), one of the greatest of English novelists He is especially famous for his creation of fascinating and interesting characters Vol V, 377-378, 396 See also "Christmas Dinner at Bob Cratchit's" from "A Christmas Carol," Vol VIII, 282-285 Portrail, Vol V, 401

Dickinson, Emily (1830-1886), American poet was remarkable for her very original poetry

V, 414-415

Diocletian (B C 245-313), emperor of Rome from 284 to 305 Vol VII, 48

Dodge, Mary Mapes (1838-1905), American author of several well-known books for boys and girls She founded the St Nicholas Magazine in 1873 and was for many years its editor Read "A Skating Race in Holland" from "Hans Brinker, or The Silver

Skates," Vol VIII, 324-332 Dodgson, Charles Lutwidge (1832-1898), English author who, under the pen name "Lewis Carroll," became famous for the delightful "Alice" books "Alice's Adventures in Wonderland" and "Through the Looking Glass" were written originally for a child friend of the author In private life Charles Dodgson was a mathematician "The Whiting and the Snail," Vol VIII, 38

Donatello (1386-1466), Italian sculptor, one of the great masters in art in the early Renaissance

Vol V, 337-340, 342 (with pictures)
Douglas, Stephen A (1813-1861), political leader from Illinois, prominent in the Democratic party. remembered as the opponent of Lincoln in the "Lincoln-Douglas" debates Vol VII, 247, 249

Draco, or Dracon (B C 7th century), Athenian legis-

lator Vol VII, 21

Drake, E L, drilled the first oil well in Pennsylvania in 1859 Vol II, 187

Drake, Francis (1545?-1595), Sir, English explorer during the reign of Queen Elizabeth, the first Englishman to sail round the world Vice-admiral in the British fleet at the time of its engagement with the Spanish Armada Vol IV, 46-47, VII, 114, 164, II, 275 Portraits, Vol IV, 46, VII, 129
Dunlop, John Boyd (1840-1921), Scotch veterinary

surgeon who patented the pneumatic tire in 1888

Vol II, 218

Durer, Albrecht (1471-1528), famous German painter, woodcarver, and engraver of Nuremberg Vol V, 204-205 (with picture), II, 222

Dvorák, Anton (1841-1904), Slavic musical composer From 1802 to 1805 he was head of the National Conservatory of Music in New York

## E

Eastman, George (1854-1932), American inventor of the kodak and the practical "roll-film" See Vol II, 171-172 Portrait, Vol II, 171

Ebert, Friedrich (1871–1925), first President of the German Republic (1919–25) Vol VII, 93

Edison, Thomas Alva (1847-1931), great American inventor Some of his most famous inventions are the stock ticker, multiplex telegraphy, the incandescent lamp, the carbon telephone transmitter, the phonograph, and the motion picture camera See Vol II, 151, 162-163, 169-171, VIII, 85-90 traits, Vol II, 170, 393, VIII, 88

), German physicist He Einstein, Albert (1879is best known for his theory of relativity announced in 1905 Left Germany in 1933 because of Nazi perse-Accepted chair in mathematics at cution of Jews Institute for Advanced Study at Princeton, N J

Vol II, 399-400 Portrait, Vol II, 399

Eisenhower, Dwight D (1890-), American general in World War II Commanded Allied armies in North African, Sicilian and Italian campaigns of 1943 January, 1944, went to London to command Allied invasion of western Europe Vol VII, 282, 283

Elizabeth, Queen (1533-1603), daughter of Henry VIII and Anne Boleyn Her reign (1558-1603) was characterized for England by conquest over foes abroad, exploration, and the establishment of peace and patronage of the arts within her realm Vol VII, 113, 114, 143, II, 12, 183, IV, 46, V, 387

Elzevir, Louis (1540?-1617), early Dutch printer in Leyden He was the first of a family of printers The Elzevir editions were famous for their design and for the neatness of the printing Vol II, o

Emerson, Ralph Waldo (1803-1882), American writer of essays and poetry. I or the greater part of his life he lived quietly in Concord, Massachusetts His wise, original, and deeply thoughtful writings have influenced people everywhere. Vol V, 4c6,

408, VII, 173, 247 Portrait, Vol. V, 407 Endicott, John (1588?-1665), Governor of the Massa

chusetts Bay Colony in 1629-1630 \ \old \ \II, 170 Ericson, Leif, Viking explorer who landed on the shores of America about the verr 1000 See Vol

Ericsson, John (1803-1889), Swedish engineer and inventor of the screw propeller. He came to the United States in 1839 Vol IV, 301 302, 343

Euclid (B C about 300), great Greek mathematician whose propositions in plane and solid geometry are the foundation of the teaching of to day 261-262 Picture, Vol I, 259

Euripides (BC 480-406), one of the three great Atheni in tragic poets, whose work was so successful that his plays held the stage for 600 years. His plays show power of invention strong characterization, and dignity, but lack the religious tone of Æschylus and the sympathy and nobility of Sophocles Vol VII, 32

Eusebius (Pamphili) (2607-3407), of Cusarea, re membered for his chronicles of the early Christian church Vol VII, 47

Evans, Mary Ann (1819-1880), famous English novelist who is known as "George Lliot" She is often called a novelist of purpose because she tried to see deeply into the minds and hearts of her characters. Vol. V, 399-400. See also "Brother and Sister" from "The Mill on the I loss." Vol. VIII, 256-260

Ewald, Carl (1856-1908), Danish author For several years he was a forester Read his nature stories "The Queen Bee" and "When My Iady Spring

Comes," Vol IX, 114-115, 115-117

Fabius, Quintus Maximus (hved about BC 210), Roman dictator at the time of the war with Carthage, remembered for his strategy in battles with

Hannibal Vol VII, 41, 43 Fabricius, Hieronymus (1537-1619), Italian surgeon See his connection with photography, Vol II 14,

Fabricius, Johann (1587-1615) German astronomer who discovered solar spots Vol I 15

Fabre, Jean-Henri (182,-1015) French scientist who devoted his life to studying insects. He lived in retirement, and taking no account of books based all his work on what he himself observed Nol N 305

Fahrenheit, Gabriel Daniel (1686-1736) German scientist who manufactured meteorological instru ments He introduced the thermometric scale which is called by his name Vol I S, Faraday, Michael (1701-1867) Frighth scientist

famous for his investigations in the field of elec-His discovery of the law of the dynamo was particularly important See Vol VIII 66-71 Vol II, 38-30 66 68 378 Picture Vol II 577 Portrait, Vol VIII 60

Ferguson, James (1710-1770) Scottish astronomer Vol I, 62, 64

Field, Eugene (1850-1805) American poet. He was born in St. Louis and lived for mo t of his life in the Middle West - His poems for children and about children have been particularly popular. See hi pocms, \ol \, 146-147, I\ .

Field, Rachel (1804-1042), American author She was awarded the John Newbery Medal for Hitty Her First Hundred Years which was judged the best book written for children in 19 9. Many of her books are illustrated by her own sletches See selections from Hitty, Her Lirst Hundred

Years," Vol V, 178-183

Fiesole, Giovanni da, Fra Angelico (1,57-115) great Italian artist, born in Tusciny Italy When he was about twenty one years old he entered the Dominican monastery at Licsole and tool the name of Giovanni Thereafter he was I nown as Giovanni dr Ficsole (John of Liesole) He was called Iri (Brother) Angelico because of his beautiful charac ter. It is said that no one ever saw him angry. He painted only sacred subjects Sec Vol V .70-50

(painting, from 270), \(\bar{1}, 255\) (paintings)

Fisher, Dorothy Canfield (1870- ) American author, who writes under her maden name Dorothy Canfield She was born in Kan as while her father, a native of Vermont, was a professor of the University there. During the World War she did valuable relief work in France. Her many novels, short stories books on education and translations have made her extremely well I nown Read 'The Bedguilt" from Hillsboro People ' \ III, 10-14

Flamminius, Crius (Died B ( 217) Roman consul and general defeated by Hannibal at Lake Irasi

mene Vol VII, 41

Flint, Timothy (1780-1810) American minister and writer. He was born in Massachusetts and vent West soon after 1800. His book de cribing the frontier life as he observed it is one of the most in teresting accounts of this period Nol VII 14

Foch, Ferdinand (1851-10 o) I reach marshal in the World War On account of his ability as a leader and a strategist received in April 1018, the chief command of all the Allied Armics in France Visited the United States in 1919 Vol VII 27

27.5 IV 1.77, 138 15.

Ford, Henry (186.5- ) pioneer automobile manu facturer who by mass production created the fir t low priced automobile See Vol. II. 172-174 ("il. pietures 103" Pertrad Vol. II. 173

Fra Angelico, see I iesole

Francis Ferdinand (1863-1014) Austrian Archdule whose assassination was the occasion of the starting

of the World War Vol VII 170 71

Francis of Assisi, Saint (1182-1220) son of an Italian cloth merchant who turned from his are life as a leader of the youn, men of the toy not Assis a gave himself to a life of service for Ged and a an In a time when the distinction between the elecof society vias extreme he bridged the gap by I i service to the poor and sick. As others feeled to join him he founded the order of the Irinci cars which bound its members to voluntary pover varia brotherhood. His love of nature vas deepered by his religious fervor into a sense o tellor ship at hoil creatures which became the theme of his own poems and of paintings of him. I my ic of ex

Francis of Assisi, Saint - Continued

traordinary gifts, he wrote a rule of life, and other books on spiritual matters which are among the classics of religious literature \lambda ol \, 265

Francis Joseph I (1830-1916), King of Hungary and Emperor of Austria Last ruler of the Austro-Hungarian federation \lambda ol \lambda II, or

Franklin, Benjamin (1706-1790), American famous for his contributions as a scientist, and for his work in France as minister from the United States during the Revolutionary period His books, particularly "Poor Richard's Almanack" and his "Autobiography," have also given him a place as a man of letters Vol II, 0, 12, 37-38, 63, 119, Vol VII, 185, 108, Vol X, 314, 315 Portraits, Vol II, frontispicce, 35, VII, 199

Frederick III (died 1403), German Ling and Emperor of the Holy Roman Empire, 1440-1403 Vol

VII, SS

Frederick the Great, Frederick II (1712-1786) laid the foundation for the modern Prussia as leading state of the German empire Vol II, 6, Vol

VII, 89-00 Portrail, Vol VII, 89 Frederick William, the Great Elector (1620-1688),

Hohenzollern prince Vol VII, So

Frémont, John C (1813-1800), American soldier, political leader and explorer of routes west from the Mississippi to the mouth of the Columbia Because he surveyed the route carefully and gave valuable information about the western country, he was called the "Pathfinder" Vol IV, So, Vol VII, 237
Fyleman, Rose (1877- ), English writer She

studied music and became a professional singer and teacher of music In 1918 her first book, "Tairies and Chimneys," was published Since then she has written many other books for children Read "Fairies," "I Stood Against the Window," "The Robin," Vol V, 142, 152, 154

Gainsborough, Thomas (1727-1788), one of the first great English painters Vol V, 206, 207 ("1th

picture)

Galileo Galilei (1564-1642), early Italian astronomer Made many discoveries which were of great importance to science Vol I, 37-38, 56, 62, 70, 111, 262, II, 6, 138, 139 Pictures Vol I, facing 1, 60, 259, II, 7

Galton, Francis (1822-1011), Sir, English scientist and explorer Wrote several volumes about his discoveries regarding the characteristics of the human

race Vol II, 377 ( 1th picture)
Gama, Vasco da (1469?-1524), Portuguese navigator, who discovered the sea route from the Mediterranean to India Vol IV, 36, VII, 106-107 Portrait, Vol IV, 36

Gandhi, Mahatma (1860-), Hindu nationalist leader of India See Vol I, 373-374, II, 366, VII,

Picture, Vol I, 373

Garibaldi, Guiseppe (1807-1882), Italian patriot Banished to South America for revolutionary activity, he gained there the military experience which he used in his leadership of the "One Thousand" to Sicily Vol VII, 83-85 Portrait, Vol ۱II, 84

Garland, Hamlin (1860-1940), American writer, best known for his books about the pioneers who sought to make homes on the prairies of the Middle West He was born in Wisconsin and lived in Minnesota. Iowa, and Dakota before he went to Boston and be-

gan writing Vol IX, 363 Read "The Coming of the Circus," Vol VIII, 2-6 Gaskell, Elizabeth Stevenson (1810-1865), English author Her book, "Cranford," remains one of the most fascinating stories of English life ever written Vol V, 399 Read "Consternation in Cranford," Vol VIII, 303-310

Gates, Horatio (1728-1806), American general in the Revolutionary War Vol VII, 191, 194 George III (1738-1820), King of England at the time

of the American Revolution Vol VII, 182-183

Ghiberti, Lorenzo (13787-1455), Italian sculptor, best known for his beautiful bronze doors for the Baptisters in Florence Vol V, 335, 336-337 (arth picture)

Gibbs, Josiah Willard (1839-1903), American noted for his work in the field of mathematical physics

Vol II 40, 377, (with picture) Giffard, Henri (1825-1882), French engineer who in 1851 built a lightweight steam engine which he suspended to a balloon This carried him successfully through the air at a rate of six miles an hour Vol II, 120

Gilder, Richard Watson (1844-1909), American poet and editor From the time he was a young boy he contributed verse and essays to the newspapers As the editor of the Century Magazine he was very influential in literary circles See one of his poems, Vol VIII, 32

Giotto, Bondone (1267?-1337), Italian painter, sculptor, and architect For his story see Vol 1, 277-279

(painting, 278)
Gladstone, William (1800–1808), English statesman during the reign of Queen Victoria. In our books you will find out about him in connection with the Irish Home Rule Bill \ol \II, 122

Godfrey de Bouillon (10617-1100), leader of a German group in the Tirst Crusade to the Holy Land In 1000 he was elected the first ruler of Jerusalem Vol VII, 60 Picture Vol VII, fros tispiece

Goethals, George Washington (1858-1028), Colonel, American engineer in charge of the construction of the Panama Canal In 1014 he was appointed the first civil governor of the Canal Zone Vol IV, 326

Goethe, Johann Wolfgang von (1740-1832), the great poet of Germany He was born at Frankfurt-on-Main Before he was sixteen years old he was writing poetry, as he continued to do all his life One of his greatest works is the drama 'Faust" dramatic poet and interpreter of life he ranks with the English Shakespeare as one of the leading geniuses of all time Portrait, Vol VIII 313

Gogh, Vincent Van (1853-1890), Dutch painter studied to be a minister, and as a missionary lived in a community of miners for a time. His first interesting painting showed a group of simple peasants who lived near his father's home in Holland

See Vol V, 303 (painting, facing 303)
Goldsmith, Oliver (1728-1774) English author of novels plays, and poems Vol VIII, 55-56, Selection from "The Vicar of Wakefield," Vol VIII, 217-223 Portraits, Vol VIII, 55, V, 401
Goodwin, Hannibal, inventor of the celluloid film in 1885 Vol II, 151

Goodyear, Charles (1800-1860), American inventor who discovered the process for vulcanizing rubber Vol II, 28, 216

Gordon, John Brown (1832-1904), a prominent Con federate general in the Civil War Quoted, Vol

Gorgas, William Crawford (1854-1920), American surgeon who served as the chief sanitary officer in Panama during the building of the canal So effective were his methods that he succeeded in climinating yellow fever in the Canal Zone and also in bring ing malaria under control Vol IV, 326, 309, Vol VIII, 94-97 Portrait, Vol VIII, 95

Goya y Lucienties, de Francisco (1746-1828), Spanish artist. As a court painter he painted many mem bers of the royal family. He refused to flatter people but always painted them as they appeared to him All his painting was brilliant, lifelile and strong For that reason he influenced many of the modern artists See Vol V, 290 (painting facing 200)

Grady, Henry W (1851-1889), a journalist and orator who lived in Georgia He was prominent in the South during the difficult period of reconstruction His speech, "The New South" explains the difficult problems which faced the Southerners after the Civil War and shows how many of these had been solved Vol VII, 256

Gramme, Zenobe Théophile (1826-1901), Belgian scientist, who produced the direct current dynamo

in 1870, and for whom the unit of weight, the "gram," is named \ ol \ II, 70

Grant, Ulysses S (1822-1885), eighteenth President of the United States, 1869-1877 Born in Ohio, struggled in early life with poverty. In the Civil War became general in command of all the Union forces Vol VII, 252-253 Portrait Vol VII, 203

Greenaway, Kate (1846-1001), English artist and writer She is particularly remembered for the fas cinating children's books which she wrote and illus-Vol V, 363-365

Greene, Nathaniel (1742-1786), an able American general in the Revolutionary War, prominent in the

campaign in the South Vol VII, 104
Gregory, Pope (540?-604), surnamed the Great, the first of sixteen popes of that name The last of the great Latin Tathers Held the civil office of prefect about 573, but gave this up not long after to take up the religious life Founded a number of monasteries Bede relates the incident to the English slave boxs in Rome Angles, of whom Pope Gregory said, 'They have the faces of angels" Vol V, 243 Grenfell, Wilfred Thomason (1865-1940), Sir, British

medical missionary Educated at Oxford, where he received the degree of M D Has done a great work in Labrador and northern Newfoundland as a physician and a humanitarian See Vol IV, 106-

201, Portrait, Vol IV, 197

Grenville, George (1712-1770), I ord English states man prime minister under George III Vol VII, 182 Grenville, Richard (15417-1591), Sir, Englishman, who led expeditions to Virginia in 1585 and 1586 Vol

VII, 164

Grimm, Jakob (1785-1863), Wilhelm (1786-1850) the German brothers who collected and published the famous fairy stories called by their name were both teachers in Berlin and members of the German Academy of Science Selec "Grimm's Lairy Tales," Vol V, 10-39 Selections from Portraits, 1 ol 1, 10

Grotefend, Georg Friedrich (1775-1853), German  Guiterman, Arthur (1871-1043), American born in Vienna of American parents. The fam ly returned to New York when he is as two vers old He graduated from the College of the City of Ne York and has been an editor and a teacher. Kead "Wind in the Hair and Rain in the Iace On Vira," "The Pioneer' Vol VIII , V 157
Gulick, Luther H (1805-1018) American To it!

his vife founded the organization of Carp Lie Girls and wrote books on physiolo, v, hyriene and

101 11 -11 physical education

Gustavus I Eriksson (1406-1500) ling of 5 cde known as "Gustavus Vasa" who ruled Sweden vith a rod of iron during the thirty seven veirs of his long reign following the separation of the king dom under his leadership from Denriarl VII, 152 Pertra t Vol VII, 152

Gustavus II Adolphus (1504-16, ) v ho e rulitary victories established Svieden as a recognized and in dependent state of I urope | Vol. VII, 15 -17

trait Vol VII, 153

Gutenberg, Johannes (1,077-1468) carly German printer who is usually considered the in entor of printing. He was an engraver and reade his metal letters in beautiful shapes life those used in hand writing Vol II, o (with pr ture)

Hale, Nathan (1755-1776), American patriot **NII**, 180

Halley, Edmund (1656-1742), Lnglish astronomer friend of Newton, and the fir t to male a prediction of a comet's return Vol I, 46, 6. Portr 1, Vol I

Hamilear Barca (B C 270?-2 0?), a state-man and general of Carthage Vol VII 41

Hamilton, Alexander (1757-1804), American states man Born in the West Indies I ducated at King College (nov Columbia University) in New Yor By his great ability patriotism and fore sight he helped to establish the government of the United States The leader of the Lederalist par v See Vol VII, 107, 215-210

Hammurabi (about B C 1000) King of Babylon be lieved to be Amraphel Wrote the 'Code of Ham murabi" or "Judgments of Righteoneness "

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Handel, Georg Friedrich (1685-17-0) musician and composer a German, whose work was done class

in Incland Vol V 255 Portre / Vol V 259 Hannibal (B C 247-183) Carthalinian general ac claimed by both ancients and moderns as a great military genius. Tailed in the great purpo c of lislife — to defeat the Romans. The effore of the Roman armies and their commanders to o ercom this great general form one of the significant annals in Roman history Vol VII, ... -... static, Vol. VII, facing at Hanno (B.C. about 500) ancient Carthagirian er

plorer of the west coast of Mrica Nol MI, 1,-1,,

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Hargreaves, James (? -1778) Lightsh ca cr who in 1764 invented the sample jerny named after his daughter Jenny) by which east careads yere spun at once. The other cavers feared that the new machine would take on a a rominem and they broke into Hargren est ouse and smallet the junny Nol II, 17, 22

Haroun-al-Raschid (7662-800), famous caliph of Bagdad During his rule the Arabian empire was particularly flourishing He was a scholar and a poet and encouraged writers and musicians Because he was made the hero of many stories in the "Arabian Nights,' his fame spread throughout regions for from Arabia Vol VII, 50

Harrison, Benjamin (1833-1001), the twenty-third President of the Umited States Grandson of Wilham Henry Harrison the ninth President During his presidency important negotiations were carried on between the United States and several other countries Vol VII, 258 Portrait, Vol VII, 203

Harte, Francis Bret (1836-1002), American writer of stories and poems His stories describing the life in California during the gold-rush days are particularly well-known. Vol VII, 242
Harvey, William (1578-1657), English physician who

discovered the circulation of the blood \ol I, 266, X 327-328 Picture, Vol I, 263 Hasdrubal (B C died 207), Carthaginian, brother of Hannibal Vol VII, 43

Hatasou, Egyptian Queen who lived about B C 1500 During her reign the obelisks at Thebes were built She sent an expedition to South Arabia to find

treasure to pay for these Vol II, 220 Hawthorne, Nathaniel (1804-1864), American writer

who loved to portray American town and village life as it was in the early days of our country V, 370-372, 408-400 Read "The Minotaur," and "Little Anne's Ramble," Vol VIII 161-174, 370-374 Ha thorne s House (2011), Vol VIII, 371

Haydn, Franz Joseph (1732-1800), Austrian musical composer, friend of Mozart, best known for his great number of instrumental compositions, especially symphonies of which he composed one

hundred and four \old \old \, 250

Havne, Robert Young (1701-1839), United States
Senator from South Carolina wlo defended "States rights' in his famous debate with Daniel Webster.

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Helmholtz, Hermann von (1821-1804), German scientist, for many years a professor at universities in Berlin and Heidelberg His important investigations in many branches of science, particularly physiology and physics, won him fame

Hennepin, Louis (1640?—after 1701), "Father Hennepin" a missionary, member of La Salle's expedition to the West First white man known to have seen

Niagara Vol I, 163

Henry, Patrick (1736-1790), an American statesman and orator Author of the "Virginia Resolutions delegate to the Continental Congress in 1774 and 75, governor of Virginia 1776-1778 Sent out cvpedition under George Rogers Clark

182, 183, 107, 232

Henry, Prince of Portugal (1304-1460), called "Henry the Navigator" He hoped to find a water route to India and furnished money and outfits for vovages About two thousand miles of the of exploration West African coast were discovered in this period by men sailing under the Portuguese flag Vol IV, 30-31, Vol VII, 106
Henry IV of France, "Henry of Navarre" (1553-1610),

first French Ling of the House of Bourbon See

Vol VII, 97
Henry VIII (1491-1547), King of England, 1509-47, the son of Henry VII Vol VII, 112-113

Herkimer, Nicholas (17152-1777), an American general in the Revolutionary War \ol \II, 191 Hero of Alexandria, a mathematician who lived in Egypt in the first or second century before Christ He made the first crude sort of steam engine \ \lol II, 43 52

Herodotus (BC 484<sup>2</sup>-425<sup>2</sup>), Tather of History, a Greek historian Vol IV, 30, VII, 7, 17 Herschel, Caroline (1750-1848), astronomer, sister of Sir William Herschel She assisted her brother in his observations of the heavens and did many of the difficult calculations The English Astronomical Society presented her with a gold medal and later she received one also from the King of Prussia Vol I, 64 Portrait, Vol I 61

Herschel, John Frederick Wi. 12m (1792-1871), Sir, English astronomer, son of Sir William Herschel He completed with the assistance of his father a special mirror for a reflecting telescope in 1820

Vol II, 158

Herschel, William (1738-1822), Sir, English astronomer, born in Hanover He and his sister Caroline are said to have discovered about seventy million stars with the telescope which he made himself

Vol I, 30, 64 Portrait, Vol I, 61

Hertz, Heinrich (1857-1804), German scientist He intended to be an engineer but gave up that profession and studied physics under Helmholtz in Berlin Because of his brilliant discoveries about electromagnetic waves, such waves are called in his honor "Hertzinn waves" Vol II, 85-80 Hill, James Jerome (1838-1016), born in Canada,

financier and builder of railroads, a pioneer in opening up with the aid of Canadian and American capitalists the northern routes to the Pacinc Vol IV,

338-330, VIII, 100-102 Portrait, Vol VIII, 102 Hipparchus (BC 1702-1262), early Greek astrono-

mer, who mide the first catalogue of the stars \ol I, 4, 60, 262 Picture, \ol I, 250
Hippocrates (B C 460-350 or 377?) Greek physician who made medicine a scientific profession instead of a business for magicians Vol I, 263-264 Picture,

Hiram, King of Tyre He was supposed to have been the friend of both David and his son Solomon and to have supplied building materials for David's palace and for Solomon's temple Vol IV, 294, ۱II, 15

Hitler, Adolf (1889-), Dictator of Germany Vol VII, 03-94, 277-280 Portrait, VII, 94, 277 Holbein, Hans, The Younger (1407)-1513), German

punter, son and pupil of the elder Holbein See Vol V, 204, 207 (pair tirg, 204)
Holmes, Oliver Wendell (1800-1804) American

author of verse and prose, one of the New England group of writers Vol V, 411-412, VII 227 "The Chambered Nautilus," Vol I, 239 Portrait, Vol

Homer, the great Greek poet He probably lived about the minth century BC, but we cannot know about the finth century BC, but we cannot know anything certainly about his life. His famous poems are the "Ilind" and the "Odyssey" Vol VII, 32 Read "The Siege of Troy," Vol VIII 153-161 Homer, Winslow (1836-1910), American painter, noted for his sea pictures. Vol V, 304-305 (paint-

1ng, 304)

) Thirty-first President Hoover, Herbert (1874ot the United States, 1929-1933 Secretary of Mining en-Commerce under President Harding

Hoover, Herbert - Continued

gineer in charge of large enterprises in the United States, Australia, and China Did eminent service during the World War as Head of the Belgian Relicf Commission and later as Food Administrator for the United States Vol II, 91, 92, 296 Portrait, VII, 206

Fornaday, William Temple (1854-1937), American zoologist, formerly director of the Zoological Parl at the Brons, New York City He called the attention of the United States government to the necessity for protecting the wild animals, and probably saved the bison from extinction Read his stories, Vol V, 202-209, also, III, 194-197

Houston, Sam (1793-1863), American general in var between the Mexicans and the American settlers in

Texas Vol VII, 240

Howe, Elias (1819-1867), American inventor of the sewing machine Vol II, 22-23 Portrait, Vol II, 22 ?-1611), Linglish navigator and Hudson, Henry ( explorer, whose name has been perpetuated in Hud son Bay, Hudson Strait, Hudson Territory, and Hudson River Vol VII, 144, 161, 167, IV, 48-50 (with picture)

Hughes, Charles Evans (1862-) American states Governor of New York, Justice of the Su preme Court, Secretary of State, Chief justice of the Supreme Court Vol VII, 260,

Humboldt, Alexander von (1768-1859), German natu ralist and traveler See Vol I 271, II, 38 Portrait, Vol I, 271, picture, II, 35

Huygens, Christian (1629-1605), Dutch mathematician and astronomer Made the first pendulum clock Vol II, 7, 36 Picture, Vol II, 35

Inness, George (1825-1894), American painter of landscapes Vol V, 304

Irving, Washington (1783-1859), American author of fascinating tales, humorous history, and biography Vol V, 405

Isabella I (1451-1504), wife of Ferdinand, queen of Castale and Leon, who gave Columbus the inancial backing for his voyage Vol VII, 105-106, IV, 13 Isaiah, Prophet of Jerusalem leader of the Jerusalem people from about 738 to 701 B C Vol VII, 15

Jackson, Andrew (1767-1845), seventh President of the United States, elected in 1828 and reclected in 1832 Born in North Carolina, made his home later at "The Hermitage," near Nashville, Fenn Won fame in his victories over the Creek and the Semi nole Indians and later at the Battle of New Or lenns Vol VII, 226 Portraits, Vol VII, 202 228 Jackson, Thomas Jonathan, 'Stonewall' (1824-1865) an American Confederate general one of Let's ablest and most dependable generals. A graduate of West Point served in Mexican War Helped I ce to defeat Tederal Army at Bull Run, and to hold it back from Richmond Vol VII 252 Jacquard, Joseph M (1752-1834), I rench inventor of

the Jacquard loom on which cloth having a complicated pattern might be woven Nol II, 2-, 259,

267 (picture)

James I (1566-1625), the first of the Stuart kings of I ngland (1603-1625) The son of Mary Queen of Scots, succeeded Queen Ehzabeth Vol VII 115

James II (16,5-1701) King of Ingland 165 -- 5 Vol VII, 110, 120

Jay, John (1745-18-0) American statesman one of the commissioners who ne offited the place with Great Britain after the Revolutionary War Vol

Jefferson, Thomas (1745-18.6) third President of the United States Scentary of State under Wash Vice President under John Agam Leader of the Democratic Republican Party In cr called the Republican Party Patron of edication Vol. VII 185, 210, 220, 221, IV 27, 80, I traits, VII 202 -20 picture of his home page 1

Jesus, born in Bethlehem in the reion of Herod about B C 4, died in A D 20 or 50. The records of his life are in the Gospels of Mutthey Mark Like and John at the opening of the New Ic tament. The founder of Christianity his importance as a hi torical figure may be judged by the fact that all modern dates are reckoned according to the Acar of Our Lord "Anno Domini or AD. The differ ence in the date given above of his probable birth from the calendar date of the opening of the Chris tian era is due to a miscalculation in cirly record Vol. VII, 46, IX 300-520. Hofmann's printing of "The Boy Jesus" Vol. IX, facing 287

John (11677-1216) ling of Ingland 1102-1216 son of Henry II and Lleanor of Aquitaine I orced by his barons to sign the Magia Caria (1.15) Vol VII

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Joliet, Louis (1645-1700), Canadian explorer com missioned by I rontenae to explore the Missis ip it Set out with Inther Marquette and five other Frenchmen from Green bay Wiscon in 13 167, traversed the lox river crossed to the Wi consin, and thence to the Mississippi the upper por tion of which they were the first white men to ex Went as far south as the mouth of th Arkansas river and returned to the St. I awrence by way of I de Michigan Vol I 15. VII 15

Jones, John Paul (1747-1702) American naval otneer Made his first trip to America from his home in Scotland when a boy of tyclic apprenticed to a

shipmaster Vol VII 102 104 Jonson, Ben (157,2-16,7), Inchesh dramati t and poet Wrote realistic plays and charming poetry Vol V SS, 300

Joques, Isaac (1607-1646) I rench Icsuit mis ionary to the Indians Sec Vol IV, 110-113

Joule, James Prescott (1818-1880) I nalist physici t Made noteworthy discoveries in the field of elec-

tricity Vol II 50 70 Picture, Vol II 570 Judson, Adoniram (1788-1870) one of the pioneer American missionaries to Asiatic lands Sailed ith his wife. Ann Hasseltine in 181. Did a rotable and permanent service in translating the Public into Burmes and compiling a Burme e grammer and dictionary Vol IV 70-70 Perr : Vol IV 77

Justinian I (485-505), Byzantine emperor (5-7- )

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Kafre', or Chephren, Pharnoh of I c p in t c fourt dynasty bro her of King Cheops Rublings years. Built the second period of VII S Keats, John (1705-18-1) I rule h poet 1 cmcmt are? for poems possessing ereat romant elemets. Vet V 40. Pertra t, Vol. V, got

) Although Helen Keller | Keller, Helen (1880was blind and deaf from early childhood, she became well-known as a writer, a lecturer, and a woman of wide culture Her achievements have been important in leading to better teaching of others who are blind and deaf Vol IX, 362-363

), American nuthor Kelly, Eric P (1884-Served in the World War, and spent several succeeding years in Poland where he collected material for his book, "The Trumpeter of Krakow," which

for his book, "The Trumpeter of Krakow," which won him the John Newberv medal (1928) as the best book of the year for children Read "The Man Who Wouldn't Sell His Pumpkin," Vol V, 198-202 Kempton, Kenneth Payson (1891-), American writer of stories for boys and girls Author of "Phantom Gold," "Red Eagle Island," "Sengoing Jock," "Luck of the Blue Macaw" Contributor to many juvenile magazines Read six of his adventure stories in Vol IV, 170-201

Kent, Rockwell (1882- ), American artist Vol V, 308 (painting, Vol V, 308)

Kenton, Simon (1755-1836), American scout who explored the frontier and was active in the Indian wars in Kentucky and Ohio Vol VII, 231
Kepler, Johannes (1571–1630), German astronomer, who worked out laws in regard to the motions of the

planets Vol I, 61, 62 Portrait, Vol I, 60

Kilmer, Joyce (1886–1918), American poet who was killed in the World War "Trees" is probably his most widely known poem Read "House with Nobody in It," "Delicatessen," and "Gates and Doors," Vol VIII, 25, 26, 34

Kilmer, Alme, American poet and wife of Joyce Kilmer Seeher "Song Against Children," Vol VIII, 25

Kingsley, Charles (1819-1875), English author and clergyman His most famous books are "The Water-Babies" and "Westward Ho!" Vol V, 397-398 Read Vol VIII, 174-191, 209-212, 349-362 Kingston, W H G (1814-1880), English noveless that the libration of a chartens have been appeared.

His thrilling tales of adventure have been popular with boys everywhere See "Life on a Whaler," from "Peter the Whaler," Vol VIII, 317-324

Kipling, Rudyard, (1865-1936), English author stories and poems of India and his tales of schoolboy life in England have made him particularly popular with young people Vol VIII, 43-49, II, 191, VII, 243, X, 281 Portrait, Vol VIII, 48
Kosciusko, Tadeusz (1746-1817), Polish officer who

enlisted as a volunteer in the United States army in 1776 He helped to train the continental army and planned the fortifications at West Point In 1791, when the Polish people were endeavoring to gain their freedom from Russia, Kosciusko was made commander of the Polish national army Vol VII, 192

Kossuth, Louis (1802-1894), Hungarian statesman and patriot Eviled from his country, he was received enthusiastically in France, England, and the

United States Vol VII, 91

Kublai Khan (1214?-1294) ruler of China, received Marco Polo at his court See Vol IV, 5-8 (with pictures), VII, 303

La Farge, John (1835-1910), American artist He painted landscapes, figures and still life in his early manhood Later he turned his particular attention to stained glass Vol II, 223

Lafayette, de, Marie Joseph Paul (1757-1834), Marquis, French general and statesman who served in Washington's army in the Revolution Friend of Washington and of America, foremost among the foreign generals who served in the American army Vol VII, 100-101, 194, 195 Lagerlof, Selma (1858-1940), Swedish writer

novels and stories of Sweden have become wellknown over the world In 1909 she won the Nobel prize for literature Read "The Seventeen Cats" from "Marbacka," Vol VIII, 7-9 Lamarck, Jean Baptiste (1744-1829), early French

scientist, who advanced many new ideas about plant and animal life Vol I, 266, Vol II, 38

Picture, Vol II, 35

Lamb, Charles (1775-1834), English author of essays and poems With his sister Mary (1764-1847) he wrote "Tales founded on the Plays of Shakespeare," (He wrote the tragedies while Mary wrote the comedies) "Story of the Tempest," Vol VIII, 200-206

Landor, A Henry Savage (1865-1924), Englishman, well-known as a traveler, writer, and artist He explored many little known regions he crossed Africa in its widest part, 8500 miles in 364 days, traveled through unexplored regions of South America, went overland from Russia to Calcutta Vol IV, 85-88

Langland, William (1330?-1400?), early English poet who wrote "The Vision of Piers the Plowman" He is supposed to have been a priest in London

Vol V, 384

Langley, Samuel Pierpont (1834-1906), American astronomer and physicist, who was one of the first to believe in the practicability of "flying machines" and to make experiments with "aerodromes" See

Vol II, 124-725, 131, 150 (picture), 176 Lanier, Sidney (1842-1881), American poet originality was shown in musical poems which were often descriptive of the South where he lived Vol

V, 414, III, 94 Laplace, Pierre Simon (1749-1827), Marquis de, French astronomer, whose studies and observations proved the truth of Newton's theory of gravitation Vol I, 65, 269-270 Pictures, Vol I, 61, 267

Larcom, Lucy (1826-1803), American writer of children's stories See Vol V, 367-368

La Salle, René Robert Cavelier, Sieur de (1643-1687), French explorer, who came to Montreal in 1666 He was sent by Frontenac, governor of Canada, on missions to France in connection with the building of forts and the extension of the fur trade His explorations of the whole Mississippi region finally carried him to the gulf, but his chief service was as much as an organizer and empire builder as in the lines of exploration He was a man of great talent and of far vision Vol I, 152, VII, 125
Lavoisier, Antoine Laurent (1743-1794), French

scientist who developed chemistry into an exact science Vol I, 268 Picture, Vol I, 267
Lawrence, James (1781-1813), Captain in the United

States navy, during the War of 1812 he was in command of the Chesapeake Vol VII, 227

Layamon, English poet who lived in the twelfth century and wrote the "Brut" Vol V, 380

Lear, Edward (1812-1888), English artist and writer of humorous verse See "The Owl and the Pussy-Cat," "The Jumblies," "The Duck and the Kangaroo," "The Table and the Chair," Vol IX, 169-170, 170-172, 217-218, 219

Ledwidge, Francis (1891-1917) Irish poet who was killed in the World War "The Shadow People," Vol VIII. 20

Lee, Richard Henry (1732-1794), a prominent delegate from Virginia to the Second Continental Con-

gress, orator and patriot Vol VII, 185

Lee, Robert Edward (1807-1870), celebrated Confederate general Son of Henry Lee, ('Light-Horse-Harry"), American general in the Revolutionary War Gave distinguished service in the Mexican War In 1861, was made the Commander in-Chief of the military forces of Virginia Through out the Civil War proved himself a great general and leader of men From close of the war until his death, president of Washington College Llected to American Hall of Time, 1900 Vol VII, 254-255 Pictures, Vol VII, 250, 255
Leeuenhock, Anton van (1632-1723), Dutch inventor

of the microscope He also was the first to describe accurately the red blood corpuscles In 1683 he made the first drawing of bacteria Vol II, 371

I enine, Nicholas (1870-1924), Russian Bolshevik leader, founder and influential leader of the Soviet Republics and the Communist International the death of Lenine, the name of the city of Petrograd (originally St Petersburg) was changed to Leningrad Vol VII, 139

Lenski, Lois, American author and illustrator 'The Sewing Circle," Vol. V, 184-189 Leomdas (died B.C. 480), King of Sparta who died heroically at Thermopyle, defending the pass against the Persians Vol VII, 27, 28, 331

Lesseps, Ferdinand de (1805-1894), French engineer of the Suez can'l and in 1879 chosen to build the

Panama canal Vol IV, 316, 319, 322, 398

Lewis, Meriwether (1774-1809), Captain, American army officer who, with William Clark as assistant, led the first expedition across the country to the Pacific Vol I, 156, Vol IV, 116-122, Vol VII, Portrait, Vol VII, 223

222-224 Portrait, Vol VII, 223
Lilienthal, Otto (1848-1896), pioneer German aviator who built many gliders Vol II, 123-124
Lincoln, Abraham (1809-1865), President of the United States He signed the Emancipation Proclamation which freed the slaves on January 1, 1865 His Gettysburg Address given after the battle of Gettysburg in 1863 showed his ability to express himself in simple, beautiful language and his great sympathy with the South as well as the North See

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Lincoln, Nancy Hanks, mother of Abraham Lincoln
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Lindbergh, Charles A (1902-), American avia-

), American aviator, famous for making the first non stop flight from New York to Paris in 1927 In 1928 he flew through Central America, northern South America and the West Indies on a "good-will" mission The Woodrow Wilson Medal and \$25,000 were awarded to him Since then he has been engaged in various commercial and business enterprises Vol II, 116, VI, 60 Portre t, Vol II, 130

Lindsay, Vachel (1870-1931), American poet who, for a time, wandered on foot about the country reciting his own poetry. He also studied art and illustrated several of his later books of poems. Read "Let Gentle Will the Grain Be," "The Moon's the North Wind's Cooky," "Crickets on a Strike,

Vol V, 143

Linnæus, Carolus (1707-1778), Swedish botanist His real name was Carl von Linne Lamous he cause he devised a system of giving specific names to genera and species of plants Vol 1, 207- th (with picture), 111, 384 Lister, Joseph (18-7-1012), great I ngh h sur con

called the 'fither of modern surgery See Vol IV

Liszt, Franz (1811-1886), Hungarian musician and composer, who rendered great service to the ad-

vincement of music Vol V, 247

Livingstone, David (1813-1873) Scottish missionary and explorer in Airica. With his mis-ionary and was combined a scientific spirit which made his contributions as geographer and observer of the chemic teristics and customs of the tribes involumble to later students. He stands out as the ideal explorer Vol IV, 79-84, I, 168 Pertrait, Vol IV 51

Lloyd-George, David (1863- ), an I nelish state man, prominent during and after the World War Vol VII, 122

Lodge, Henry Cabot (1850-1024) American states man and author, senator from Mis ichusetts for nearly thirty two years Vol VII 207

Lodge, Oliver (1851-1040), Sir I nglish philosopher scientist and author Vol V 65 106, 267, 318

), author of the famous Doc Lofting, Hugh (1886tor Dolittle stories. He made up the first story while he was serving in the World War and wrote it in letters which he illustrated himself to his children at home. In 1022 he was given the John Newbers Medal for "The Voyages of Doctor Dolittle," which was considered the best children's book of the verr He was born in England, became a civil engineer and traveled in all parts of the world Vol V, 100-104 "The Great Journey"

Longfellow, Henry Wadsworth (1807-1887) \mcri can poet, greatly loved for his poems which tell stones and for those which describe the thoughtand feelings that come to everyone Nol N 400-410, Vol VI So, Vol VIII 35, V Dutch Picture
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'Hesperus'," 315, "The Skeleton in Armor' Per
trait Vol V, 407, picture of library Vol VIII, 1
Louis Philippe (1773-1850), King of I rance from 1850
to 1848 Vol VII, 10,

Louis XI (1423-1483), King of Irance, 1.61-1.48, Son of Charles VII, established postotices in France \ol \II, 05

Louis XIII (1601-1643), King of I rance 1610-16, Richelieu his prime minister, the real ruler Vol

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Louis XIV (1658-1715) King of France 1645-1715 Versailles, his grand palace typical of his love of magnificance. Vol. VII of 100

Louis XV (1715-1774) King of Irance Vol VII of Louis XVI (175,-170,), King of Irance 177,-170, at the time of the I rench Revolution Vol VII, 02 100, 101

Louis XVIII, Louis Stanislas Xavier (1755-18.,) King of Irance, April, 181,-March, 1815 Vol

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Lowell, James Russell (1810-1801) American author of essays and poetry, editor, and diplomat. Vol. V, 410-411 quotations from poems III 10, 70, 320 VII 241 \ 10 Por ra I, Vol V 07

Luther, Martin (1483-1546) the leader of the German

Reformation through whose in theree Poe canism began. Although ordained a pricet later, in the Luther, Martin - Con 'unucd

face of opposition of the Church and Empire declared the authority of the Scriptures supreme over that of the Pope Luther translated the Bible from the Greek and Hebren texts into the language of the German people Vol VII So, IX, 241
Lycurgus (BC oth century), Spartan lawgiver
Vol VII, 26

Lyell, Charles (1797-1875), Sir English scientist, who gave a scientific explanation of the changes which go on in the earth's surface Vol I, 168, 272, Vol II, 378 Picture, Vol II 377

Lyon, Mary (1707-1840) one of the outstanding American women during the nineteenth century She saw the need for higher education for girls and due to her efforts Mt Holvoke Temple Seminary was opened in 1837 See Vol IX, 360-361 Por-

trait Vol IX, 350 Lysander (Died, B C 395), Spartan statesman and general Vol VII, 34

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Macaulay, Thomas Babington (1800-1850), English nuthor and politician Read "Horatius at the Bridge,' Vol VIII 101-107 Portrait Vol V, 401 McCormick, Cyrus Hall (1800-1884) American who invented the McCormick reaper Vol II, 30, 32 McCutcheon, John Tinney (1870-), American cartoomist and newspaper correspondent, brother of the payelist, George Barr McCutcheon, On staff of the novelist, George Barr McCutcheon On staff of Chicago Tribune since 1003 Winner of Puhtzer prize for cartoons in 1031 See sketches VI 300

Mace, Jean (1813-1804) French writer and teacher of natural science and literature "The Neckline of

Truth, Vol IX, 174-176 McKinley, William (1845-1901) twenty-fifth President of the United States 1807-1001 Vol VII. 260 261, 265 Portrait, Vol VII 203

Mackintosh, Charles, Scottish inventor of waterproof cloth in 1825 Waterproof rainconts are often called by his name Vol II, 210

Madison, James (1751-18,6) fourth President of the United States, 1800-17 Secretary of State under Jefferson a prominent member of the Constitutional Convention 1787 Vol VII 225, 220
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Magellan, Fernando (14803-15-1) Portuguese navi-

gator \ol I\ 20-24 ( tl pretures) \ II 107 161 Malory, Thomas (about 1470) Sir I nglish writer who hved in the fitteenth century. His book 'Morte d Arthur' (Death of Arthur) tells the stories of King Arthur in beautiful prose 1 ol 1 380

VII, 73 Marconi, Guglielmo (1874-1937) Italian inventor He worked out a practical method of using electrical waves for wireless telegraphy Vol II S6, 176

Portrait, Vol II S4

Mare, Walter John de la (1873- ) English author of both prose and poetry Until 1908 he wrote only ) English author in his spare time while he was in business in London Then he won a prize which gave him an opportunity to devote himself to literary work. Some of his most delightful poems have been written for children See his poems in Vol V 148 153

Maria Theresa (1717-1780), Ruler of Austria \ol \II, oo

Marie Antoinette (1755-1793), Queen of France, wife of Louis XVI, Vol VII, 99, 101 Picture, Vol VII,

Marquette, Jacques ("Père Marquette") (1637-1675) French Jesuit missionary who explored with Johet the upper Mississippi One of the courageous and devoted priests who gave their lives in the service of the Indians. They came to love him and called him "The Young White Father" Vol. I,

Marquis, Don (Donald Robert Perry) (1878-1037), American writer He studied art in Washington and worked on several newspapers. He is bestknown for his humorous stories and verses See "The Tom-Cat," Vol VIII 28

Martel, Charles, governed the Frankish kingdom from 711 to 741, his son Pepin III, first of the Carolingian Kings Vol VII, 53 58

Mary Stuart (1542-1587) Queen of Scots, daughter of King Lames V of Scotland Married France II.

King James V of Scotland Married Francis II King of France from 1559 to his death in 1560 After the death of Francis, Mary returned to Scotland See Vol VII, 113, 114 Mary Tudor (1516-1558), Mary I, Queen of England,

1553-58 Vol VII, 113, 114
Masefield, John (1874- ), English writer of poems and novels When he was fourteen years old, he went to sea on a merchant ship and for three years traveled over the world Then he worked in New York for several wars before he returned to England His first book, "Salt Water Ballads," was published in 1002 He was appointed Poet Laureate of England in 1030 Read "A Wanderer's Song," \ol \III, 34

Mather, Cotton (1663-1728), Boston minister and chronicler of Colonial times Vol VII, 181

Maximilian I (1450-1510), Emperor of the Holy

Roman Luppire, 1403-1510 Vol VII SS 140

Maxwell, James Clerk- (1831-1870), Scottish scientist Γamous for discovering that electromagnetic action passed through space in transverse waves like those of light Vol II, 40, 85, 86, 159, 379

Put irc, Vol II, 370 Mazarin, Jules or Giulio (1602-1661), Italian Cardinal and prime minister under Louis XIV of France

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Mazzini, Joseph or Guiseppe (1805-1872), Italian patriot and revolutionist \ \ \ ol \ \ II \ S2

Medici, Lorenzo de (14487-1402), ruler of Florence, mentioned in our books as patron of Michelangelo 1 ol 1, 345

Meer, van der, Jan (1632-1675), famous Dutch landscape painter known as Jan Vermeer Vol V, 203

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Mendel, Gregor Johann (1822-1884) Austrian monk who discovered the laws of heredity in plants

Mendelssohn, Felix (1800-1847), German musical composer Vol V, 258

Mergenthaler, Otto (1854-1800), inventor of the linotype machine. He was born in Germany but came to the United States when he was eighteen He had been trained as a machinist verrs old and worked in a machine shop in Washington After many years of experimentation the first successful linotype machine was set up in 1886 Vol II, 33

Metternich, Klemens von (1773-1859) Austrian | prime minister See Vol VII, 90-91 Partrait, Vol VII, 91

Michelangelo, Buonarotti (1475-1564), one of the great figures of the Middle Ages, painter, sculptor, architect, and poet Read of him in Vol V, 281-285

and 344-347, and in Vol VII, 74

Millet, Jean François (1814-1875), French painter Everyone is familiar with his "The Angelus" one of the finest of his studies of peasint life. Sec also "The Sower," Vol V, 299, described on 300, and "The First Step," 378
Millikan, Robert Andrews (1868-

), American scientist who has made important discoveries about the structure of matter Vol II, 400, A, 315

Portrait, Vol II, 400
Miltiades (died about B C 488), Athenian statesm in and general, victor at the Battle of Mirathon

Vol VII, 27

Milton, John (1608-1674), great Puritan poet of Lng land His famous poem "Paradise Lost" was written after he became blind Vol 1, 390 ture, Vol. V, 389

Minuit, Peter (1580?-1641), Dutchman the first governor of New Netherlands He bought all of Manhattan Island for \$24 00 Vol VII, 167 Mirabeau (Gabriel Honore Riquetti) (1749-1701),

Count, French statesman at the time of the I reach

revolution Vol VII, oo

Mitchell, Maria (1818-1889) American astronomer She discovered a new comet in 1817 and received a gold medal from the King of Denmark in recognition of her work In 1865 when Vassar College was es tablished she became professor of astronomy there She was the first woman member of the American Academy of Arts and Sciences Vol V, 362-363

Mohammed or Mahomet (570?-632), founder of the religion known in the Western world as "Moham-medanism" and the Fastern as 'Islam" Vol VII,

57-58

Mohr, Josef (1792-1848), humble German poet and priest, who, in the year 1818, wrote the words for the famous Christmas Carol, "Silent Night, Holy Night" This song is now sung in almost every language throughout the world Vol IN, 2,6

Molière (1622-1673), French author of famous plays His real name was Jean Baptiste Poquelin Portrait,

Vol VIII, 313

Monet, Claude (1840-1926), French impressionist land scape painter Vol V, 302

Monroe, James (1758-1831) fifth President of the United States Secretary of State under Madison, the close friend and follower of the political prin ciples of Jefferson President for two terms 1817-1825, administration included the 'I ra of Good Teeling" The Monroe Doctrine took its name from a statement in President Monroe's Message to Congress Dec 2, 1823 Vol VII, 221, 23, Portrait Vol VII 202

Monteverde, Claudio (1567-1643), Italian composer of opera Vol V, 248-240
Montezuma (1466 or 1480-1520) Emperor of Mexico, who received and welcomed Cortez and his party of Spanish explorers in response to an Aztic tradition of the expected coming of the white men made them rich gifts, was betraved and made prisoner in his own capital by Cortez and died in battle with the Spaniards Vol II, 346, IV, 30, \ II, 107

Montgolfier, Joseph (1740-1810) Stephen (17, -1700) French inventors of the first successful passenger carrying balloons. Vol. II 118 Monvel, Louis Maurice Boutet de (18 0-1013)

I rench artist, who turned to illustrating books in order to earn his living. He is noted for the reality of his children's pictures See Vol V 365 61 IN, 232-235 347 Moore, Clement Clarke (1770-1863) American

Hebrew scholar and teacher who is chiefly remera bered for his poem Iwas the Night before Christmis" which he wrote for his own children

See Vol IX 168-169

More, Thomas (1478-1535) Sir Lord Chancellor under Henry VIII of Ingland Sec Vol VII 11 -115 ( ith picture)

Morgan, Daniel (17,6-180.) American general in the

American Revolution Vol VII 191 193

Morley, Christopher (1800- ) American author of poetry essays, and novels. In 1010 on his gradia tion from college, he was awarded a Rhodes scholar ship and studied at Oxford in Ingland for three vears—After his return to this country he devoted himself to writing Read 'Animal Crackers Vol 1, 140, and 'Song for a Little House and Smells' Vol VIII, 26, 28

Morse, Samuel F B (1701-187.) American inventor famous for inventing the telegraph Vol II 7.-7 150, 167 Portrait Vol II 7.

Moses, lawgiver and leader of the Hebrews in their evodus from I gypt, the story of whose life and work is recorded in the Biblical books of Lyodus Numbers and Deuteronomy \ol \II 1;~15, \ol I\ 205, 308

Mozart, Wolfgang Amadeus (1756-1701) Austrian musical composer | See Vol. V | 256 | H | 1

ture Vol V, 253, portrait, 257

Muir, John (1838-1014) American naturalist explored little known regions of North America In Maska he discovered the placer called by his name 'Muir Glacier He advocated the preservation of American forests and the establishment of parks and reservations Vol VIII 71-76, X, 242 243, 246 Portraits Vol III 207 VIII 75, 75 unchausen, Baron The real Munchausen was

Munchausen, Baron probably a soldier who haed in Hanover from 17 o to 1707. After highling in the wars against the Russians and the Turks he settled at home where he used to entertain himself and his friends with marvelous tales of his own heroic exploits. Rudolf I rich Raspe remembered these stories v hen he was penniless in I ondon and wrote the first tales of the great Baron. These tales were published in 1787. Then the different bool sellers made up other adventures for the Baron. Or if any extraordinary happening occurred that was used as the basis for a new story. In this way the original tales arev Sec. A Trip to the Moon and multiplied Whale Story" 'The Lion Crocodile Incounter Vol VIII, 385-,88

Mussolini, Benito (1885- ) Italian polyical leader founder of Inscism Vol. VII 86-87

Portra t Vol VII 56

Muybridge, Edward, American who in 187 13 17 charge of the photographic surveys made by the United States Coast and Geodetic Survey His photographs taken of a running bor e vere in portant in shoving the polibilities of no on pe tures Vol II 151

Naismith, James (1861-1030), Invented basketball At that time he was instructor in the Y M C A college at Springfield, Massachusetts Vol VI, 53

I ansen, Fritjiof (Fridtjof) (1861-1930), Norwegian explorer of the Arctic regions Vol II, 350, IV,

explorer of the Arctic regions Vol II, 350, IV, 55-56, VII, 282 Portrail, Vol IV, 57

Napoleon I (Napoleon Bonaparte) (1769-1821), famous emporer of the French Vol II, 201, III, 74, IV, 314, 356, VII, 79-80, 101-102 Picture, Vol VII, 81

Napoleon III, Louis Napoleon Bonaparte (1808-1873). Emperor of the French, 1852-70 Vol VII, 83,

92-93, 103

Nebuchadnezzar or Nebuchadrezzar (Reigned about B C 604-561), a king of Babylon, who restored this city so that it became one of the wonders of the He is mentioned in the Old Testament world See Vol VII, 10-11, 15, IV, 222, IX, 304-306 Nelson, Horatio (1758-1805), first Viscount, English

admiral, famous in naval history for his ability as a commander, his devotion to his country, and his leadership of men Won great victory over the French fleet at the "Battle of the Nile," August 1, The Nelson Monument, Trafalgar Square, London, erected as a memorial to his great victory at Trafalgar Vol VII, 100

Nero. Claudius Cæsar Augustus Germanicus, Roman The last of the Casars emperor, 54-68

VII, 46

Newcomen, Thomas (1663-1720), English engineer who formed a partnership with Thomas Savery He improved Savery's early steam pump and to-gether they produced, in 1711, a successful pumping engine Vol II, 44

Newton, Isaac (1642-1727), Sir, English scientist who discovered that the law of gravitation explains why planets revolve about the sun Vol I, 6, 30, 62, 102, 267, II, 138-139 Portraits, Vol I, 61, 267 Nightingale, Florence (1820-1910), Englishwoman,

whose training in nursing enabled her to render invaluable service on the battlefields and in the hospitals of the British during the Crimean War, and in the establishment of nursing as a recognized profession in England Vol V, 375-377 Portrait, Vol V, 376

Noguchi, Hideyo (1876-1928), Japanese physician who devoted his life to the study of prevention of great disease plagues While studying yellow fever he contracted the disease himself and died Vol

IV, 399

Noyes, Alfred (1880-), English poet He taught in this country at Princeton University for several years and lectured at other colleges and universities His many fascinating books of poems have made him popular everywhere "Old Grey Squirrel," Vol VIII, 30

Orsted (Oersted), Hans Christian (1777-1851), Danish scientist who experimented with electricity and magnetism See Vol VIII, 69-70

Otis, James (1725-1783), American patriot and orator See Vol VII, 182

Otto (912-973), Emperor of the Holy Roman Empire, 962-973 See Vol VII, 55

Paderewski, Ignaz Jan (1860-1941), Polish musician and statesman, well-known in the United States as a concert planist

Paine, Albert Bigelow (1861-1937), American author He was the editor of a department in St Nicholas for some time and has written many stones for young people "Christmas Luck," "The First Performance," Vol V, 173-177, 105-107 formance," Vol V, 173-177, 195-197
Papin, Denis (1647-1714?), French scientist who ex-

perimented with steam and invented the condensing-pump which led to the invention of the early steam engine by Savery and Newcomen Vol II, 43 Parnell, Charles Stewart (1846-1891), Irish Home

Rule leader Vol VII, 120

Pasteur, Louis, (1822-1895), French chemist and bacteriologist who discovered the heat process of destroying harmful bacteria, now widely used in the "pasteurization" of milk Also well-known for his succe-sful vaccine treatment for hydrophobia and anthrax Vol II, 298, 379-382, IV, 395-396

Patrick, Saint, (373?-463?), pitron saint of Ireland, who organized Christians, and brought Ireland into closer touch with the Continent Vol VII, 64

?-67?) Although born and reared as Paul, Saint ( a strict Tew, Paul became the great Christian leader As "the Apostle of the Gentiles" he did much to spread the Christian religion Vol VII, 46

Peary, Robert Edwin (1856-1020), American arctic explorer, who was the first white man to reach the North Pole See Vol IV, 58-62 Portraits, Vol

IV, 57, 61

Pégoud, Adolphe (1889-1915), French aviator, said to be the first to "loop the loop" In 1915 he was awarded the Trench military medal for his valiant

service in the World War

Penn, William (1644-1718), Englishman, who came in his youth under the influence of John Fox's follow ers and became a Quaker His colony in America was noted for its charter of religious freedom in a period of much intolerance Scenes from his life are shown in picture in Vol VII, 174-175

Pericles (BC 495?-429), Athenian statesman who helped to make possible for his city and country the glorious "Age of Pericles" See Vol VII, 29-32

Perry, Ohver Hazard (1785-1819), officer in the United States navy During the War of 1812 he was placed in command of the forces on Lake Erie Vol VII, 226 Picture, Vol VII, 225

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Tacitus, Cornelius (557-1207) Roman historian Lived through the reigns of nine emperors includ ing those of Nero, Gilba, Vespasiin and Irajan Among his works are "The Life of Agricola" The Histories," and "The Annals" Vol VII to

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Tyndall, John (1820–1803) English scientist Noted for his ability to make difficult matters clear and for his investigations of gases and vapors Vol I, 101, 103, 100, 176

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